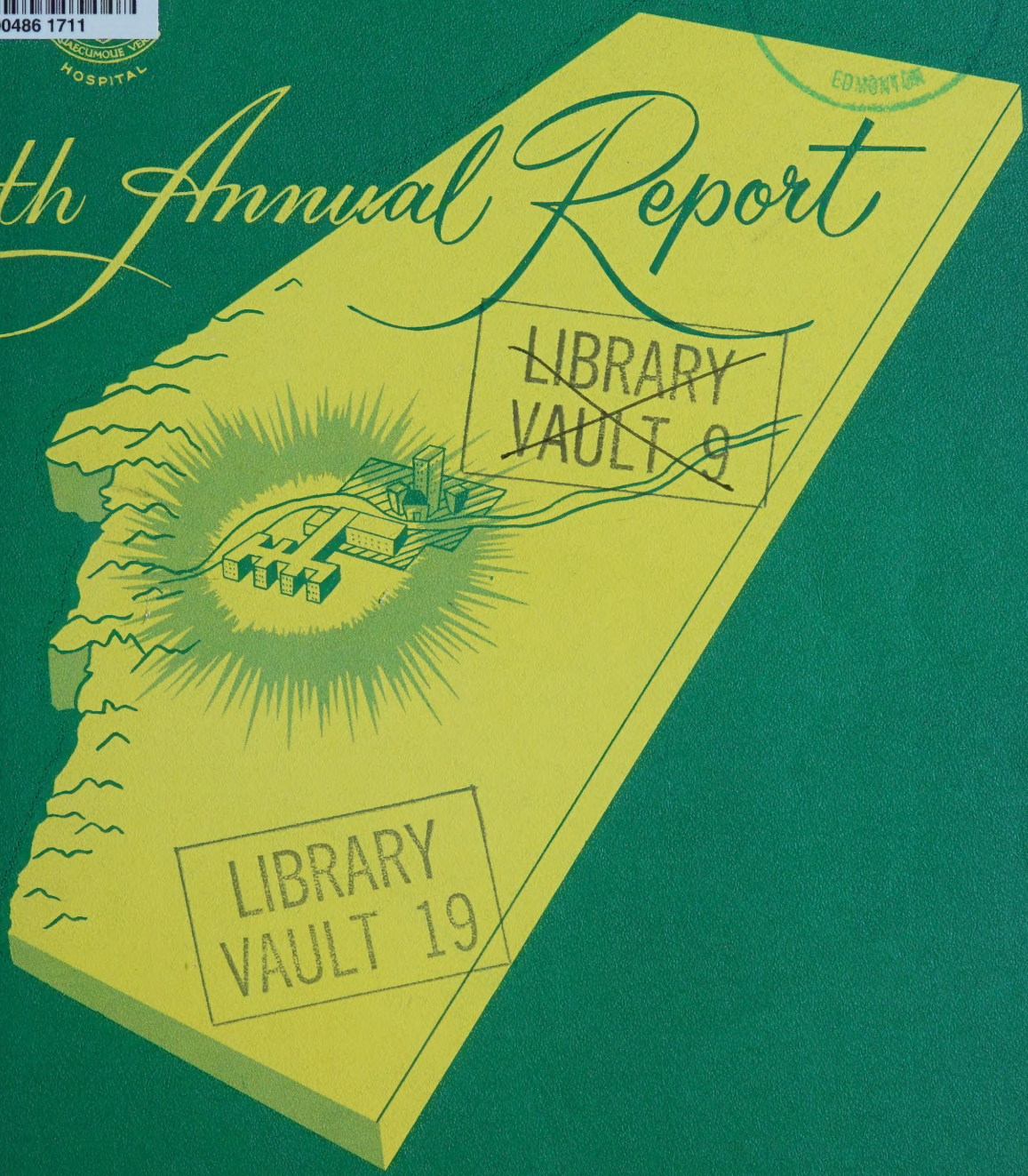
CA2 ALU 50
A56
1959

ALBERTA LEGISLATURE LIBRARY
3 3398 00486 1711

37th Annual Report



UNIVERSITY OF ALBERTA HOSPITAL, EDMONTON, ALBERTA

UNIVERSITY
of ALBERTA
HOSPITAL

UNIVERSITY OF ALBERTA HOSPITAL

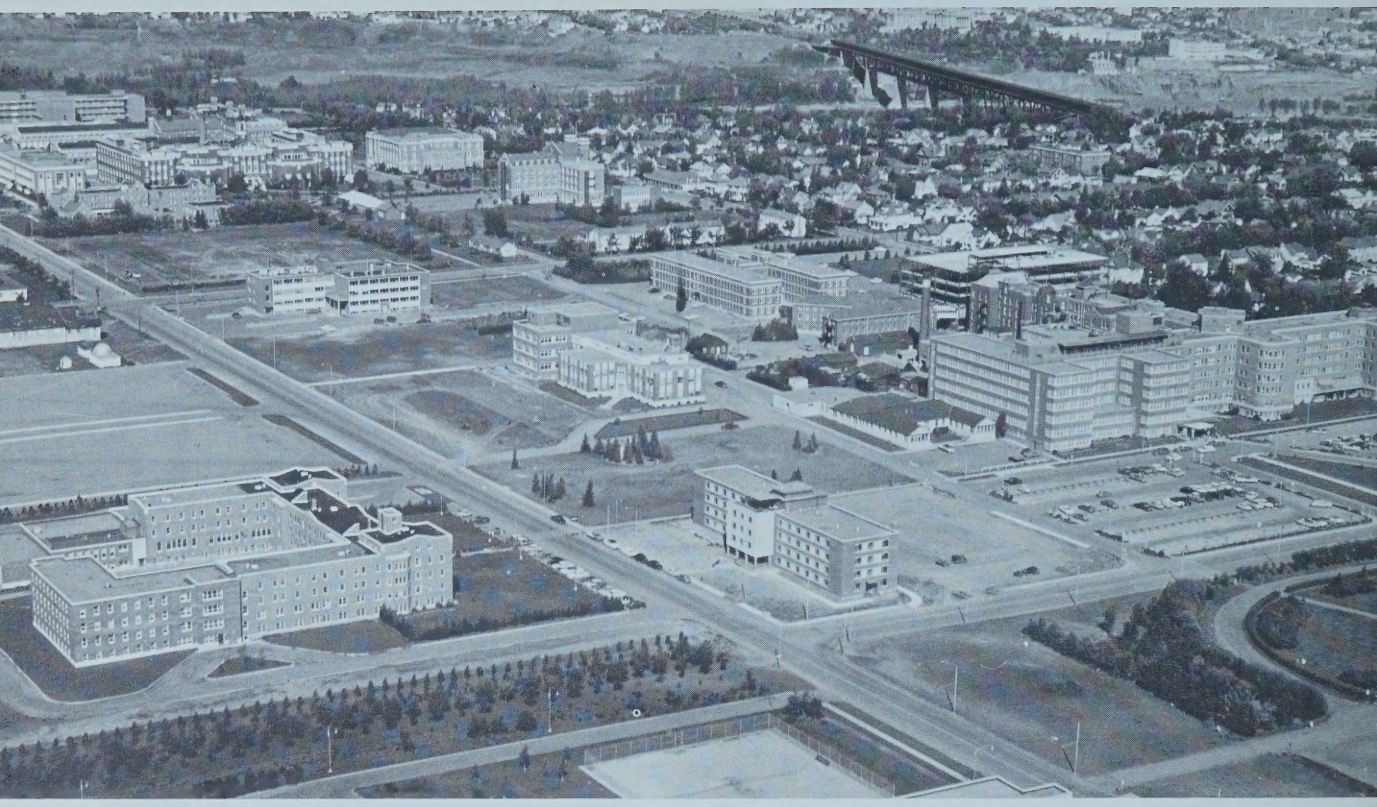
Thirty Seventh
annual report

FOR THE YEAR ENDING DECEMBER 31, 1959

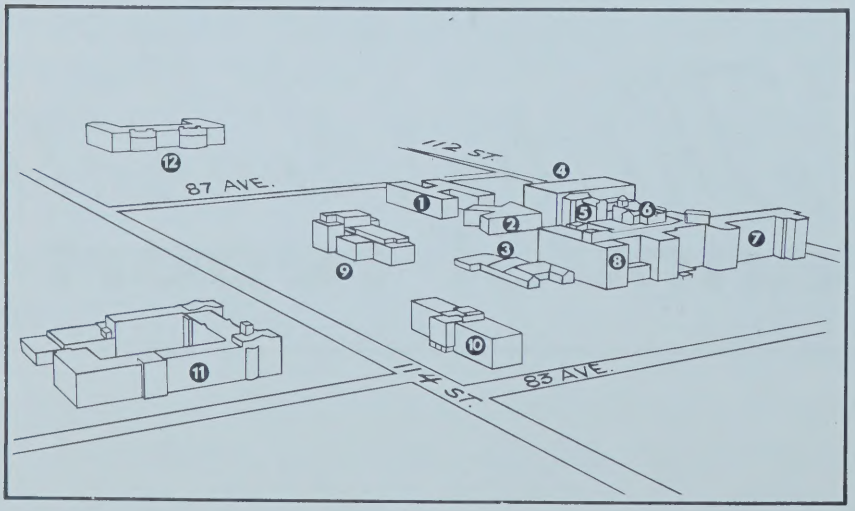
DEDICATION

To all those who have served and are serving the cause of health through the medium of the University of Alberta Hospital, this report is dedicated.

A. C. McGUGAN, M.D.,
Superintendent.



Aerial View, University of Alberta Hospital



1. Mewburn Pavilion
2. South Pavilion
3. Provincial Cancer Clinic
4. Service Building
5. Original Hospital (1913)
6. 1930 Addition
7. 1951 Addition
8. Rehabilitation Addition 1957
9. Public Health Building
10. House Staff Residence
11. Nurses' Residence
12. Medical Building, University of Alberta

Dr. A. C. McGugan	*Superintendent*
Dr. B. Snell	*Assistant Medical Superintendent*
Mr. L. R. Adshead	*Business Administrator*
Mr. G. Sherwood	*Assistant Business Administrator*
Dr. W. C. MacKenzie	*Dean of the Faculty of Medicine*
Dr. M. R. Marshall	*Chairman, Committee on Graduate Training*
Dr. A. S. Little	*Chairman, House Staff Committee*
Dr. W. C. MacKenzie	*Director, Department of Surgery*
Dr. D. R. Wilson	*Director, Department of Medicine*
Dr. J. R. Vant	*Director, Department of Obstetrics and Gynecology*
Dr. M. R. Marshall	*Director, Department of Ophthalmology and Otorhinolaryngology*
Dr. K. A. Yonge	*Director, Department of Psychiatry*
Dr. J. K. Martin	*Director, Department of Pediatrics*
Dr. J. W. Macgregor	*Director, Department of Pathology*
Dr. R. E. Bell	*Director, Department of Clinical Laboratory Services*
Dr. H. E. Duggan	*Director, Department of Radiology*
Dr. E. A. Gain	*Director, Department of Anesthesiology*
Dr. M. T. F. Carpendale	*Director, Department of Rehabilitation*
Dr. R. H. MacLean	*Director, Department of Dentistry*
Dr. F. G. Ramsay	*Senior Treatment Medical Officer, D.V.A.*
Miss J. S. Clark	*Director of Nursing*
Mr. W. W. Maday	*Director, Pharmaceutical Services*
Miss J. G. Nairn	*Medical Records Librarian*
Mrs. S. Philip	*Medical Social Service*
Miss M. Price	*Admitting Officer*
Mr. J. Pedden	*Personnel Director*

REPORT OF THE SUPERINTENDENT

Mr. D. J. Avison,

Chairman,

University of Alberta Hospital Board.

Sir:

I have the honour to submit this, the thirty-seventh annual report, covering the operation of the University of Alberta Hospital for the year ended December 31, 1959. As we have changed recently from the fiscal year to the calendar year, there will, of necessity, be a degree of overlapping in this year's report and last year's. This report is being compiled early in the year 1960 but it will not be tabled in the Legislature until the 1961 session of that body, and therefore some of the information offered herein will be outdated.

PERSONNEL OF THE HOSPITAL BOARD

Personnel of the Hospital Board:

The personnel of the Hospital Board has changed materially during the year. Dr. Andrew Stewart, President of the University of Alberta, has been replaced by the newly-appointed President, Dr. Walter H. Johns. Dr. J. W. Scott, Dean of the Faculty of Medicine, has been replaced by the newly-appointed Dean, Dr. Walter C. MacKenzie. Mr. F. Stewart has been promoted to the rank of Deputy Provincial Treasurer, and has been replaced by Mr. J. M. Currie, Assistant Deputy Provincial Treasurer.

DEATHS AMONG STAFF MEMBERS

Deaths Among Staff Members:

We regret to report the deaths of Dr. A. C. Rankin, a former Dean of the Faculty of Medicine at the University of Alberta, who was an Honorary member of our staff; and Dr. W. P. Calhoun of the Department of Dentistry.

APPOINTMENTS AND RESIGNATIONS

Appointments and Resignations:

APPOINTMENTS:

The following appointments have been made during the year:

J. D. M. Alton—B.Sc., M.Sc., M.D. (Alberta): Spec. Cert. Pl. Surg. R.C.P.S.(C): F.R.C.S.(C)—Surgery (Plastic)

K. Baker—M.B., Ch.B., M.D. (Liverpool): M.R.C.O.G.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): F.R.C.S.(C)—Obstetrics and Gynaecology

H. M. Barker—B.Sc. (Manitoba): M.D. (U.W.O.): L.M.C.C.: D. Psych. (Toronto): Spec. Cert. Psy. R.C.P.S.(C)—Psychiatry

J. S. Barr—M.B., Ch.B. (Glasgow): M.R.C.O.G.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C)

D. J. Campbell—B.Sc. (Alberta): M.S., Ph.D. (Purdue)—Consultant, Clinical Laboratory Services

R. B. Devlin—M.D. (Manitoba): Spec. Cert. Paed. R.C.P.S.(C)—Paediatrics

J. R. Hemstock—B.Sc., M.D. (Alberta): L.M.C.C.: D.A. (McGill): Spec. Cert. Anaes. R.C.P.S.(C)—Anaesthesiology

J. R. Hilliard—M.D. (Toronto): L.M.C.C.: F.R.C.P.(C)—Medicine (Internal)

Z. Hoar—B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Anaes. R.C.P.S.(C)—Anaesthesiology (Courtesy)

J. R. Huckell—B.Sc. (Alberta): M.D., C.M. (McGill): F.R.C.S.(C)—Surgery (Orthopaedic)

H. Pascoe—B.A., M.D. (Toronto): D. Psych. (Toronto): Spec. Cert. Psy. R.C.P.S.(C): F.R.C.P.(C)—Psychiatry

A. F. Phillips—B.A. (Cambridge): M.A. (Cantab): M.B., Ch.B. (Edinburgh): M.D. (Edinburgh): D.M.R.T. (R.C.P. London and R.C.S. England)—Consultant, Radiology

H. F. W. Pribram—B.A., M.A. (Cambridge): M.B., B.Ch. (Cantab.): M.R.C.S.: L.R.C.P.: D.M.R.D.—Radiology

P. T. Quinlan—B.Sc., M.B., Ch.B. (Manchester): F.R.C.S. (Edinburgh): Spec. Cert. R.O.L. R.C.P.S.(C)—Otorhinolaryngology

R. E. Rossall—B.Sc., M.B., Ch.B., M.D. (Leeds): M.R.C.P. (London): F.R.C.P.(C)—Medicine (Internal)

B. J. Sproule—B.Sc., M.D., M.Sc. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C): F.R.C.P.(C)—Medicine (Internal)

A. R. Urschel—D.D.S. (Alberta)—Dentistry

H. T. G. Williams—M.B., Ch.B. (Liverpool): F.R.C.S. (England): F.R.C.S.(C)—Surgery (General)

RETIREMENTS:

Dr. S. M. Scott—Department of Veterans' Affairs

LOOKING FORWARD

Looking Forward:

With the ever expanding trend towards more socialization of hospital and medical services, the utilization of hospital beds continues to increase. There is an ever increasing demand for private rooms. It is probable that within the next decade, *Need*, and not *Ability to Pay* will be the yardstick by which private rooms will be allocated by the hospital administrator. Presently about 10% of our total beds are used by D.V.A. patients who are essentially domiciliary. Another 10% of our beds are used by patients requiring long-term, intensive care. In this latter group one includes such cases as terminal cancer, terminal cerebro-vascular cases, et cetera. It follows that, although we have accommodation for about 1,200 patients, only about 950 of these are what might be termed short-term, active-treatment patients. It would appear that nothing can be done regarding the D.V.A. domiciliary patients, but it is obvious that those terminal cases requiring intensive care should be provided for in an intensive care unit. It is possible that such a unit may have to be built for the City of Edmonton.

If the City of Edmonton continues to grow at its present rate, it is possible that at some future time the Board might wish to use the north-east corner of 85th Avenue and 112th Street as a combined business and apartment building. This location would lend itself ideally for a large building with banks and similar community stores on the main floor, doctors' offices on two or three of the next floors, and bachelor apartments for nurses on the upper floors. When one has living accommodation close to the hospital, it is much easier to obtain and retain nursing staff.

Obtaining, training, and retaining staff in all categories has been our major problem for the past two decades, and probably will continue to be so. Experience

has taught us that if one wants an efficient staff in any department, he must maintain an active training program.

SPECIAL SERVICE DEPARTMENTS

Special Service Departments:

The Hospital Board and the Administration are continuing their long-established policy of recognizing patient service as a threefold function, namely: direct patient service, and service to the patients of tomorrow in the form of teaching and research. Special interest in and competence in teaching and research are prerequisites to medical staff appointments in the University of Alberta Hospital. Reference is made elsewhere in this report to the special services offered in this hospital.

OUT-PATIENT AND EMERGENCY DEPARTMENTS

Out-Patient and Emergency Departments:

One may anticipate that, with the opening of the new service unit, there will be a very definite increase in the utilization of out-patient and emergency services.

MEDICAL STUDENTS

Medical Students:

A large part of the academic instruction in medicine in the two senior undergraduate years, and a large number of clinics, are offered in the hospital.

TEACHING AT THE MEDICAL GRADUATE LEVEL

Teaching at the Medical Graduate Level:

The University of Alberta Hospital has been approved by the Royal College of Physicians and Surgeons of Canada for the training of medical graduates in all specialties. Many practitioners, after a few years in general practice, return to take one of these courses. The duration of the courses is five years, and the courses are designed to enable graduate students to qualify for Certification or Fellowship examinations in the Royal College of Physicians and Surgeons of Canada.

TEACHING AND RESEARCH BUILDING

Teaching and Research Building:

So many research projects are now in operation, and so much teaching at the undergraduate and graduate levels is provided in the hospital, that a new teaching and research building will have to be provided in the not-too-distant future.

PARKING

Parking:

Provision of parking space for the cars of members of the staff and visitors continues to be a major problem. Over the years one has seen our beautiful gardens and lawns gradually converted into parking areas. It is one's hope that it may not be necessary to encroach further on our gardens and lawns.

NURSING

Nursing:

Our nurses' residence is now large enough to accommodate about 400 students. One considers that the school has now reached its maximum number for efficient operation. In building our nurses' residence we have advocated adequacy without extravagance.

THOSE SERVED

Those Served:

A few years ago some 60% of our admissions were from outside the City of Edmonton. Presently our admissions are made up of about 50% from outside the City of Edmonton and 50% from the city itself. Approximately 90% of all patients admitted to this hospital have been referred to members of the attending staff. These cases have been referred because they present special problems in diagnosis and treatment.

The University of Alberta Hospital, and its predecessor, the Strathcona Hospital, have served the Federal Government for the past 45 years, and have provided all services for veterans except medical services. The medical services are provided by the Department of Veterans' Affairs through members of our staff.

VOLUNTARY AID

Voluntary Aid:

The Administration wishes to express appreciation for the large amount of voluntary aid received during the year. While it is difficult to enumerate all the groups which have provided assistance to the hospital, we wish to acknowledge the very enthusiastic and effective assistance which has been received from our hospital Women's Auxiliary in the care, teaching, and entertainment of patients.

We also wish to acknowledge services, gifts, donations and entertainment contributed by: The Alberta Division of the Canadian Foundation for Poliomyelitis, Mr. and Mrs. Merrill D. Muttart, The Edmonton Junior League, Voluntary Services Bureau, Army and Navy Women's Auxiliary, The War Amputee Association, L.O.B.A. Western Rose, L.O.B.A. Strathcona No. 138, Ukrainian Catholic Goodwill Club, Edmonton Women's Liberal Club, Metropolitan United Church Ladies' Group, The Salvation Army, Ladies' Auxiliary to the Canadian Legion (Montgomery Branch No. 24, Strathcona and Provincial Command Branches), Kingsway Legion, Montgomery Legion, Silver Cross Mothers, Garneau United Church Group, The Imperial Order Daughters of the Empire, The Canadian Red Cross Society, St. Patrick's Women's League, Army, Navy and Air Force Veterans' Auxiliary, 20th Century Club, Heavener School of Dancing, Kinsmen and Kinettes, The Council of Jewish Women, Central Friendship Club, Airport Greenhouses, Calenso's Floral Co., Kerrison Flowers Ltd., Virginia Park Greenhouses, A.C.T. Auxiliary, The Women's Institute of Mulhurst, Joyeux Noel Club, Shriners' Organization, The Edmonton Federation of Community Leagues, The Theatre Managers' Association, The Edmonton Eskimo Football and Baseball Clubs, and The University of Alberta Hospital School of Nursing Alumnae.

Many other donations and services too numerous to mention have been donated by individuals and organizations in the city and all have been fully appreciated. No doubt we have failed to acknowledge help from a number of sources. For such omissions we apologize.

VISITORS

Visitors:

The hospital was pleased to welcome the following distinguished visitors during the year:

Dr. Martin Roth, Professor of Psychiatry, Durham University, England

Mr. Ronald W. Raven, Surgeon, Royal Marsden Hospital, London, England

Dr. Francis Stock, Professor of Surgery, Hong Kong University

Professor J. P. Hubbard, Department of Public Health and Preventive Medicine, University of Pennsylvania

Professor E. J. Wayne, Sims Travelling Professor for 1959; Regius Professor of the Practice of Medicine, University of Glasgow, Scotland

Dr. Alan Thal, Surgeon, University of Minnesota

It affords me pleasure to acknowledge the help which I have received from members of the Hospital Board and the loyal cooperation which I have received from all professional and lay departments of the hospital. The dedicated service which members of our staff have provided throughout the years has made it possible for us to attain our present standards of service.

All of which is respectfully submitted.

A. C. McGugan, M.D.,

Superintendent

FINANCES

OUR MAIN SOURCES OF INCOME

Federal Government on behalf of D.V.A. and D.N.D. patients	$ 663,500.00
Provincial Government—direct hospitalization payments	177,700.00
Federal-Provincial Hospitalization Plan	3,692,000.00
Private and Semi-Private differentials	222,500.00
Other Sources—Private patient revenue, W.C.B., Blue Cross, Private Insurance	1,040,779.00
	$ 5,796,479.00

OUR PRINCIPAL DISBURSEMENTS

Payroll	$ 4,009,000.00
Food (Direct cost except salaries)	501,417.00
Medical Supplies	826,445.00
Maintenance including Light, Heat and Water	313,725.00
Miscellaneous	134,240.00
	$ 5,784,827.00

PRINCIPAL ASSETS OF THE HOSPITAL

Cash on hand and in Bank	$ 160,800.00
Inventories	243,300.00
Accounts Receivable—less provision for doubtful accounts	1,003,600.00
Plant Funds—including land, buildings and equipment	15,058,000.00

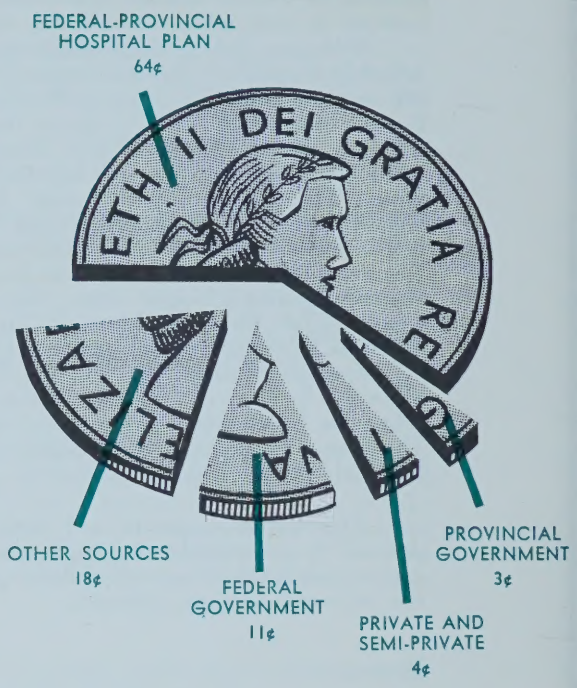
CURRENT LIABILITIES

Trade Accounts—Salaries and wages due	250,000.00
Advance for working Capital	
Interest Payable on Capital Advance	35,008.00
Hospitalization Benefits Act	28,491.00

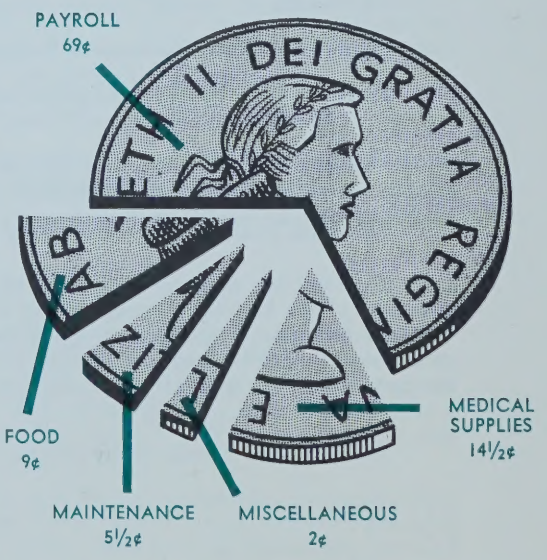
SOURCE OF CAPITAL FUNDS

Province of Alberta	12,166,000.00
University Hospital	1,699,000.00
Federal Government	659,000.00
Federal Provincial Plan	694,000.00

WHERE OUR DOLLAR COMES FROM



WHERE OUR DOLLAR GOES



REPORT OF THE BUSINESS ADMINISTRATOR

Mr. D. J. Avison,
Chairman,
University Hospital Board.

Sir:

I herewith submit financial report for the year ended December 31st, 1959.

COMPARATIVE STATEMENT OF DISBURSEMENTS

	Years Ended Mar. 31, 1957	Mar. 31, 1958	(9 mos.) Dec. 31, 1958	Dec. 31, 1959
Payroll	$2,312,700	$2,922,000	$2,647,000	$4,009,000
Food	397,100	394,000	350,603	501,417
Medical Supplies	516,500	663,000	545,023	826,445
Plant Maintenance, excluding depreciation	219,432	289,903	252,900	313,725
Miscellaneous	105,200	129,400	85,597	134,240

PERCENTAGE OF HOSPITAL DOLLAR EXPENDED

Payroll	65	66	68	69
Food	11	09	09	09
Medical Supplies	15	15	14	14½
Plant Maintenance	06	07	07	05½
Miscellaneous	03	03	02	02

Revenue

This represents the first full fiscal period operating under the Federal Provincial Hospitalization Plan. The proportion of hospital revenue provided by the Federal Provincial Plan increased to 64%. Revenue from Department of Veterans Affairs patients showed a further decrease to 11% while direct Provincial Government payments remained at 3%. Private and semi-private differential amounted to 4% and 18% of total revenue was received from other sources.

Expenditure

Salaries and wages this year amounted to 69% of total operational budget of the hospital as compared to 68% last year. Over the past 30 years the proportion of budget for salaries and wages has steadily increased. In 1930 salaries and wages represented 43% of budget; 1943—48%; 1950—54%; 1959—69%. Since 1930 total annual patient days have increased five fold. Total salaries and wages have increased thirty-three times. There has, of course, been a considerable expansion in special services and diagnostic facilities during this period. Average pay rates have increased 3½ times and working hours per week have decreased by one-third. All employees today are on a 40 hour, five-day week. To provide ward coverage of one person round the clock for seven days requires a minimum of five employees. While it is necessary to carefully scrutinize all expenditures of the hospital, the salary budget is the one requiring most careful supervision. Any new equipment or capital expenditure which can assure a reduction in total employees should be carefully considered. The areas in a hospital where this can be applied are unfortunately limited and if working hours are reduced for those providing bedside care, they can only be replaced by additional employees.

Construction

Clinical Services Wing should be open by midsummer 1960 and construction of Laundry and Maintenance building will be under way by June, 1960. Planning of renovation of 1912 building and sixth floor of 1912 and 1930 buildings is now complete and construction should be under way by fall of 1960.

May I say a sincere word of thanks to the Hospital Board, the Directors of the Clinical Departments and the heads of all hospital departments, members of the staff of Department of Public Works and the Department of Public Health for their assistance and cooperation in solving the many problems of administration during the past year.

Respectfully submitted,
L. R. Adshead,
Business Administrator

REPORT OF THE PRESIDENT, MEDICAL STAFF

Dr. A. C. McGugan,
Superintendent.

Sir:

It is my privilege to submit the annual report of the President of the Medical Staff.

The Medical Staff of the University of Alberta Hospital now totals 181, made up as follows:

Active Medical Staff:	
Indoor Appointments	109
Outdoor Appointments	16
Associate Appointments	12
Consulting Appointments	14
Courtesy Appointments	20
Honorary Appointments	10

The Executive of the Medical Staff during the year were:

President—Dr. D. F. Cameron
Vice-President—Dr. K. A. C. Clarke
Secretary—Dr. J. O. Metcalfe
Members—Dr. J. Dvorkin
Dr. D. C. Johnston
Dr. A. B. McCarten
Dr. T. R. Nelson
Ex Officio—Dr. A. C. McGugan
Dr. B. Snell
Dr. R. J. Johnston
Dr. J. W. Macgregor

General meetings of the Medical Staff were held each month for the transaction of business and the presentation of original scientific papers. The following papers were presented:

Dr. E. Abbott—Surgical Treatment of Achalasia of the Esophagus
Dr. M. Friedman—Simple Ulcer of the Colon
Dr. L. B. Brown—Vaginal Cytology

Dr. H. E. Duggan—Our Present Knowledge of Radiation Hazards

Dr. J. D. Woods—Cardiac Disorders and Coronary Anastomoses

Dr. D. W. Cardozo and Dr. J. C. Callaghan—An Approach to Cardiovascular and Respiratory Distress in Infancy

Dr. R. A. Macbeth—Audiovisual Aids in Medical Education

Dr. G. W. Cameron—The British Orthopaedic Travelling Fellowship

Dr. R. C. Harrison—British Surgical Teaching and Research

Dr. G. K. Morton and Dr. T. J. Speakman—Surgical Treatment of Spinal Cord Injury

The Executive of the Medical Staff met monthly to discuss problems affecting the Medical Staff and to review the monthly reports of deaths and complications prepared by the Department of Medicine, Surgery, and Obstetrics and Gynaecology, and the regular reports prepared by the Infections Committee, the Tissue Committee, and the Medical Records Committee.

During the year the House Staff Education Fund, made up of voluntary contributions from the Medical Staff and used to enable members of the House Staff to present original scientific work at national and international medical meetings, was utilized as follows:

Royal College of Surgeons Annual Meeting—Vancouver

Dr. W. Pisesky—The Effect of Thiotepa and Nilevar on Wound Healing

Dr. M. Friedman—Simple Ulcer of the Colon

Dr. E. Abbott—Achalasia of the Esophagus

Canadian Heart Association Meeting—Montreal

Dr. J. D. Woods—Coronary Anastomoses

American College of Surgeons Congress—Atlantic City

Dr. G. Bondar—Effects of Muscle Stimulation on Blood Flow and Experimental Venous Thrombosis

Dr. W. Pawluk—A Simple Technique for Isolation and Perfusion with Antineoplastic Agents

American College of Physicians (Regional)—Winnipeg

Dr. N. Bertrand—Diabetes and Pregnancy

The Strathcona Prizes in Nursing, sponsored by the Medical Staff, were awarded at the nurses' spring convocation:

Strathcona Prize in Medicine—Miss Barbara Jean Green

Strathcona Prize in Psychiatric Nursing—
Miss Betty Jean Marie Kossowan

In future years similar prizes in nursing will be awarded in Surgery and Obstetrics and Gynaecology.

It is a privilege and pleasure, on behalf of the Medical Staff, to express our sincere appreciation to the members of the Administration, the members of all hospital departments, the house staff, and the nurses, without whose loyal and unfailing cooperation and assistance the work of the medical staff would not have been possible.

Respectfully submitted,

D. F. Cameron, M.D.,
President of the Medical Staff

MEDICAL

ACTIVE STAFF

INDOOR APPOINTMENTS

Department of Medicine

(Director—DOCTOR D. R. WILSON)

Division of Internal Medicine

D. R. WILSON, B.A. (Oxford): M.D., C.M. (McGill): L.M.C.C.: F.R.C.P.(C): Spec. Cert. Int. Med. Alberta: F.A.C.P.

D. M. BELL, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C)

G. I. BELL, B.Sc., M.D. (Alberta): L.M.C.C.: F.A.C.P.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta.

M. M. CANTOR, B.Sc., M.D. (Manitoba): L.M.C.C.: F.A.C.P.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta.

E. F. DONALD, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta.

J. DVORKIN, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta.

A. M. EDWARDS, B.Sc., M.D. (Alberta): F.R.C.P.(C)

J. F. ELLIOTT, B.A., M.D. (Alberta): L.M.C.C.: F.R.C.P.(C): Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta: F.A.C.P.

R. S. FRASER, B.Sc., M.D. (Alberta): L.M.C.C.: M.Sc. (Bio.): F.R.C.P.(C)

J. A. L. GILBERT, M.B., Ch.B., M.D., F.R.C.P. (Edinburgh): M.R.C.P. (London): F.R.C.P.(C): Spec. Cert. Int. Med. R.C.P.S.(C): F.A.C.P.

S. E. GREENHILL, M.D. (Toronto): L.M.C.C.: D.P.H.: Spec. Cert. Int. Med. R.C.P.S.(C): F.A.C.P.: Fellow in Industrial Medicine.

K. A. HAMILTON, B.A. (Toronto): B.A., B.M., B.Ch. (Oxford): M.R.C.P. (London): F.R.C.P.(C): Spec. Cert. Int. Med. and Psych. Alberta: F.A.C.P.

E. G. KIDD, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C)

A. S. LITTLE, M.D. (Manitoba): L.M.C.C.: F.R.C.P.(C)

L. E. McLEOD, B.Sc., M.D. (Alberta): L.M.C.C.: M.Sc. (McGill): F.R.C.P.(C): Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta: Markle Scholar Med. Sc.

G. MONCKTON, M.B., B.S.: M.R.C.S.: L.R.C.P.: M.D. (London): M.R.C.P. (London): F.R.C.P.(C)

F. B. RODMAN, B.Sc. Pharm.: B.Sc., M.Sc., Ph.D. (Minnesota): M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C)

R. E. ROSSALL, B.Sc., M.B., Ch.B., M.D. (Leeds): M.R.C.P. (London): F.R.C.P.(C)

J. W. SCOTT, M.D., C.M. (McGill): L.M.C.C.: F.R.C.P.(C): Spec. Cert. Int. Med. R.C.P.S.(C): F.A.C.P.

P. H. SPRAGUE, M.D. (Alberta): M.S. (Minnesota): L.M.C.C.: F.A.C.P.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Int. Med.

R. K. THOMSON, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta: F.A.C.P.: Spec. Cert. Psych. Alberta.

Division of Dermatology

P. L. RENTIERS, B.A., M.D. (Alberta): L.M.C.C.: M.S. (Minnesota): Spec. Cert. Derm. and Syph. R.C.P.S.(C)

Department of Surgery

(Director—DOCTOR W. C. MacKENZIE)

Division of General Surgery

W. C. MacKENZIE, B.Sc., M.D., C.M. (Dalhousie): L.M.C.C.: F.R.C.S.(C): F.A.C.S.: Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Surg.

J. D. M. ALTON, B.Sc., M.Sc., M.D. (Alberta): Spec. Cert. Pl. Surg. R.C.P.S.(C): F.R.C.S.(C)

R. L. ANDERSON, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

J. C. CALLAGHAN, M.D., B.S., M.S. (Toronto): L.M.C.C.: F.R.C.S.(C): F.A.C.S.

C. M. COUVES, B.A. (Saskatchewan): M.D. (Manitoba): F.R.C.S. (Edinburgh): F.A.C.S.: F.R.C.S.(C): Dipl. Amer. Bd. Gen. Surg.

C. S. DAFOE, M.D., C.M. (Queen's): L.M.C.C.: F.R.C.S. (Edinburgh): Spec. Cert. Thor. Surg. R.C.P.S.(C): F.C.C.P.: F.A.C.S.

R. C. HARRISON, M.D. (Alberta): L.M.C.C.: M.S.: F.R.C.S.(C): Dipl. Amer. Bd. Surg.: Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

E. HITCHIN, M.D. (Alberta): L.M.C.C.: Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta.

R. J. JOHNSTON, B.Sc., M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.: Dipl. Amer. Bd. Surg.

R. A. MACBETH, B.A., M.D. (Alberta): L.M.C.C.: M.Sc. (McGill): Dipl. Surg. (McGill): F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C): F.A.C.S.

A. B. McCARTEN, M.D. (Manitoba): L.M.C.C.: F.R.C.S. (England): F.R.C.S.(C): Spec. Cert. Surg. R.C.P.S.(C) and Alberta.

B. D. MARGOLUS, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C)

H. MELTZER, M.D. (Manitoba): L.M.C.C.: Founding Member Amer. Bd. Thor. Surg.: Spec. Cert. Thor. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

B. MICHALYSHYN, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

C. A. ROSS, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): F.A.C.C.P.: Spec. Cert. Thor. Surg. R.C.P.S.(C): F.A.C.S.: F.I.C.S.

G. L. WILLOX, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

T. S. WILSON, B.Sc. (New Brunswick): M.D. (Toronto): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

Division of Genito-Urologic Surgery

J. O. METCALFE, B.S, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Urol. R.C.P.S.(C) and Alberta: F.A.C.S.

R. R. FRANCIS, B.A., M.D. (Alberta): F.R.C.S.(C): F.A.C.S.: Spec. Cert. Urol. R.C.P.S.(C) and Alberta.

G. N. TUCKER, M.D. (Toronto): L.M.C.C.: Spec. Cert. Urol. R.C.P.S.(C) and Alberta.

Division of Neurosurgery

G. K. MORTON, M.D. (Alberta): L.M.C.C.: Spec. Cert. Neurosurg. R.C.P.S.(C)

T. J. SPEAKMAN, M.D. (Manitoba): L.M.C.C.: M.Sc. (McGill): F.R.C.S.(C): Spec. Cert. Neurosurg. R.C.P.S.(C): F.A.C.S.

Division of Orthopaedic Surgery

O. ROSTRUP, M.D. (Alberta): L.M.C.C.: Dipl. Amer. Bd. Ortho. Surg.: Spec. Cert. Ortho. Surg. R.C.P.S.(C) and Alberta: F.R.C.S.(C): F.A.C.S.

G. W. CAMERON, B.A., M.D., C.M. (McGill): F.R.C.S.(C): F.A.C.S.

R. G. HUCKELL, M.D., C.M. (McGill): L.M.C.C.: Dipl. Amer. Bd. Ortho. Surg.: Spec. Cert. Ortho. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.: F.I.C.S.: F.A.A.O.S.

D. C. JOHNSTON, M.D. (Alberta): L.M.C.C.: Spec. Cert. Ortho. Surg. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Ortho. Surg.: F.R.C.S.(C)

G. L. WILSON, M.D. (Alberta): L.M.C.C.: Spec. Cert. Ortho. Surg. R.C.P.S.(C) and Alberta.

Department of Obstetrics and Gynaecology

(Director—DOCTOR J. R. VANT)

J. R. VANT, B.A. (Saskatchewan): M.D. (Manitoba): L.M.C.C.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): F.R.C.O.G.: F.A.C.S.: F.R.C.S.(C)

D. M. BELL, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Obs. and Gyn. Alberta: F.A.C.S.

L. B. BROWN, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): F.R.C.S.(C)

J. BUGIS, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta.

T. R. CLARKE, M.D. (Alberta): L.M.C.C.: F.R.C.O.G.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C)

A. DAY, M.B. (Toronto): L.M.C.C.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta.

W. D. FREW, M.B., Ch.B. (Edinburgh): F.R.C.S.(C): F.A.C.S.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): D.R.C.O.G.

R. H. HORNER, M.D. (Alberta): L.M.C.C.: F.R.C.O.G.: F.A.C.S.: Dipl. Amer. Bd. Obs. and Gyn.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta.

M. M. HUTTON, B.A., M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta: F.A.C.S.: F.A.C.O.G.

T. R. NELSON, M.B., Ch.B. (Edinburgh): M.R.C.O.G.: F.R.C.S.(C): Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta.

S. S. PARLEE, B.Sc., M.D. (Alberta): L.M.C.C.: M.R.C.O.G.: F.A.C.S.: Spec. Cert. Obs. and Gyn. Alberta: Dipl. Amer. Bd. Obs. and Gyn.

E. B. QUEHL, M.D. (Alberta): L.M.C.C.: D.R.C.O.G: M.R.C.O.G. (London): Spec. Cert. Obs. and Gyn. R.C.P.S.(C)

D. C. RITCHIE, B.Sc., M.D. (Alberta): L.M.C.C.: Dipl. Amer. Bd. Obs. and Gyn: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): F.A.C.S.

Y. YONEDA, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Obs. and Gyn. R.C.P.S.(C) and Alberta: F.A.C.S.

Department of Ophthalmology and Otorhinolaryngology

(Director—DOCTOR M. R. MARSHALL)

Division of Ophthalmology

M. R. MARSHALL, M.D., C.M. (McGill): L.M.C.C.: D.L.O. (England): Spec. Cert. O. and R.O.L.: Spec. Cert. Ophthl. R.C.P.S.(C) and Alberta: F.R.C.S.(C): F.A.C.S.

T. A. S. BOYD, M.B., Ch.B. (Glasgow): D.O.M.S. of R.C.S. (England): F.R.C.S. Oph. (England): Spec. Cert. Ophthl. R.C.P.S.(C)

J. W. DUGGAN, M.D. (Alberta): L.M.C.C.: M.M.S. (Tulane): Dipl. Amer. Bd. Ophth.: Spec. Cert. Ophthl. R.C.P.S.(C) and Alberta: F.R.C.S.(C): F.A.C.S.

R. W. ROBERTSON, B.Sc., M.D. (Alberta): Spec. Cert. Ophthl. R.C.P.S.(C)

Division of Otorhinolaryngology

W. S. S. ARMSTRONG, M.D., C.M. (McGill): L.M.C.C.: Spec. Cert. O. and R.O.L. R.C.P.S.(C)

K. A. C. CLARKE, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. R.O.L. R.C.P.S(C): Dipl. Amer. Bd. R.O.L.

T. C. WILSON, M.D., C.M. (Queen's): L.M.C.C.: Spec. Cert. R.O.L. R.C.P.S.(C): Dipl. Amer. Bd. R.O.L.

Department of Paediatrics

(Director—DOCTOR J. K. MARTIN)

J. K. MARTIN, M.R.C.S.: L.R.C.P.: M.B.: B.S. (London): D.C.H.: D. (Obst.) R.C.O.G.: M.R.C.P. (London): Spec. Cert. Paed. R.C.P.S.(C)

H. B. ARMSTRONG, M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta.

L. E. BEAUCHAMP, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta.

J. CALDER, M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta.

N. F. DUNCAN, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta: F.A.A.P.

T. A. GANDER, M.D. (Alberta): L.M.C.C.: F.A.A.P.

L. C. GRISDALE, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta.

K. A. SWALLOW, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta: F.A.A.P.

W. C. TAYLOR, M.B., Ch.B. (Aberdeen): D.C.H. (England): Spec. Cert. Paed. R.C.P.S.(C): F.R.C.P.(C)

Department of Psychiatry

(Director—DOCTOR K. A. YONGE)

K. A. YONGE, M.D., C.M. (McGill): L.M.C.C.: D.P.M. (London): Spec. Cert. Psy. R.C.P.S.(C)

G. D. CARSON, M.D. (Alberta): L.M.C.C.: Spec. Cert. Psy. Alberta.

W. FORSTER, M.B., B.S. (Durham): L.R.C.P. (Edinburgh): L.R.C.S. (Edinburgh): L.R.F.P. and S.G.: D.P.M. (London): Spec. Cert. Psy. R.C.P.S.(C)

S. S. SPANER, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Psy. R.C.P.S.(C) and Alberta.

Department of Physical Medicine and Rehabilitation

(Director—DOCTOR M. T. F. CARPENDALE)

M. T. F. CARPENDALE, M.R.C.S. (London): L.R.C.P. (England): M.S. (Minnesota): Spec. Cert. Phys. Med. and Rehab. R.C.P.S.(C)

M. C. ADAMSON, M.D. (Manitoba).

STAFF

Department of Anaesthesiology

(Director—DOCTOR E. A. GAIN)

E. A. GAIN, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Anaes. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Anaes.: F.A.C.A.

D. F. CAMERON, B.A., M.D. (Alberta): L.M.C.C.: F.A.C.A.: Spec. Cert. Anaes. R.C.P.S.(C) and Alberta.

C. D. ELTON, M.R.C.S.: L.R.C.P.: D.A. (London): Spec. Cert. Anaes. R.C.P.S.(C)

J. R. HEMSTOCK, B.Sc., M.D. (Alberta): L.M.C.C.: D.A. (McGill): Spec. Cert. Anaes. R.C.P.S.(C)

W. D. KYLE, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Anaes. R.C.P.S.(C) and Alberta.

R. G. McCALLA, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Anaes. R.C.P.S.(C) and Alberta.

J. W. R. McINTYRE, M.R.C.S.: L.R.C.P.: F.F.A.R.C.S.: D.A.

G. T. MOONIE, B.A. (Saskatchewan): M.D. (Alberta): L.M.C.C.: F.A.C.A.: Spec. Cert. Anaes. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Anaes.

Department of Radiology

(Director—DOCTOR H. E. DUGGAN)

H. E. DUGGAN, M.D. (Alberta): L.M.C.C.: F.A.C.R.: Spec. Cert. Diag. and Ther. Radiol. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Diag. and Ther. Radiol.

C. E. HOLMES, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Diag. and Ther. Radiol. R.C.P.S.(C)

Department of Pathology

(Director—DOCTOR J. W. MACGREGOR)

J. W. MACGREGOR, B.A., M.D. (Alberta): L.M.C.C.: Spec. Cert. Path. and Bact. R.C.P.S.(C): F.R.C.P.(C)

G. O. BAIN, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Path. R.C.P.S.(C) and Alberta.

J. H. STIRRAT, B.Sc., M.B., Ch.B.: M.D. (Glasgow).

Department of Clinical Laboratory Services

(Director—DOCTOR R. E. BELL)

R. E. BELL, M.D. (Alberta): L.M.C.C.: Cert. Amer. Bd. Clin. Path.: F.I.S.H.: Spec. Cert. Clin. Path. Alberta: F.C.A.P.

D. I. BUCHANAN, M.B., Ch.B. (Glasgow): M.D.: D.P.H.

Department of Dentistry

(Director—DOCTOR H. R. MacLEAN)

H. R. MacLEAN, D.D.S. (Alberta): F.A.C.D.: F.I.C.D.

C. R. CASTALDI, D.D.S., M.S.D.

S. D. FRASER, D.D.S. (Alberta)

W. S. HAMILTON, D.D.S. (Toronto): F.A.C.D.: F.D.S.R.C.S. (England).

J. D. HAWKINS, D.D.S. (Alberta).

K. A. McMURCHY, B.A. (Saskatchewan): D.D.S. (Alberta).

W. S. MURRAY, D.D.S. (Alberta)

A. R. URSCHEL, D.D.S. (Alberta).

R. S. VAN ALSTINE, D.D.S. (Alberta): M.S. (Oral Surg.) (Michigan).

OUTDOOR APPOINTMENTS

Department of Medicine

G. D. BROWN, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C)

A. CAIRNS, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. Alberta.

J. R. HILLIARD, M.D. (Toronto): L.M.C.C.: F.R.C.P.(C)

W. R. ST. CLAIR, M.B., Ch.B.: M.R.C.P. (Edinburgh): Spec. Cert. Int. Med. R.C.P.S.(C)

B. J. SPROULE, B.Sc., M.D., M.Sc. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C): F.R.C.P.(C)

Department of Surgery

R. S. HENDERSON, M.R.C.S. (England): L.R.C.P. (London): F.R.C.S. (England): F.R.C.S.(C): F.A.C.S.

J. R. HUCKELL, B.Sc. (Alberta): M.D., C.M. (McGill): F.R.C.S.(C)

H. T. G. WILLIAMS, M.B., Ch.B. (Liverpool): F.R.C.S. (England): F.R.C.S.(C)

Department of Obstetrics and Gynaecology

K. BAKER, M.B., Ch.B., M.D. (Liverpool): M.R.C.O.G.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C): F.R.C.S.(C)

J. S. BARR, M.B., Ch.B. (Glasgow): M.R.C.O.G.: Spec. Cert. Obs. and Gyn. R.C.P.S.(C)

Department of Ophthalmology and Otorhinolaryngology

P. T. QUINLAN, B.Sc., M.B., Ch.B. (Manchester): F.R.C.S. (Edinburgh): Spec. Cert. R.O.L. R.C.P.S.(C)

Department of Paediatrics

R. B. DEVLIN, M.D. (Manitoba): Spec. Cert. Paed. R.C.P.S.(C)

Department of Psychiatry

H. M. BARKER, B.Sc. (Manitoba): M.D. (W. Ontario): L.M.C.C.: D. Psych. (Toronto): Spec. Cert. Psy. R.C.P.S.(C)

J. GUILD, B.Sc., M.D. (Alberta): D.P.M. (London): Dip. Psy. (McGill): Spec. Cert. Psy. R.C.P.S.(C)

H. PASCOE, B.A., M.D. (Toronto): D. Psych. (Toronto): Spec. Cert. Psy. R.C.P.S.(C): F.R.C.P.(C)

Department of Radiology

H. F. W. PRIBRAM, B.A., M.A. (Cambridge): M.B., B.Ch. (Cantab.): M.R.C.S.: L.R.C.P.: D.M.R.D.

ASSOCIATE APPOINTMENTS

Department of Medicine

T. H. AARON, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C): F.A.A.A.: F.A.C.C.P.

C. B. RICH, M.R.C.S. (England): L.R.C.P. (London): L.M.C.C.: F.R.C.P.(C): Spec. Cert. Int. Med. R.C.P.S.(C): F.A.C.P.

B. M. WHEELER, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta: F.R.C.P.(C): F.A.C.P.

R. H. WHITING, B.A. (Toronto): M.D., C.M. (McGill): L.M.C.C.: F.R.C.P.(C): F.A.C.P.: Spec. Cert. Int. Med. R.C.P.S.(C) and Alberta.

M. K. YOUNG, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. R.C.P.S.(C)

Department of Surgery

F. G. DAY, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Orth. Surg. R.C.P.S.(C) and Alberta. M.Ch. Orth.: F.R.F.P.S.: F.A.C.C.P.: F.I.C.S.

W. F. M. HALL, B.A., M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

A. W. HARDY, M.D. (Alberta): L.M.C.C.: F.A.C.S.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta.

S. KLING, B.A. (Saskatchewan): M.D. (Toronto): L.M.C.C.: F.R.C.S.(C): F.A.C.S.: Spec. Cert. Gen. Surg. R.C.P.S.(C).

H. L. RICHARD, M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: F.A.C.S.

Department of Obstetrics and Gynaecology

A. H. MACLENNAN, B.Sc., M.D. (Alberta): L.M.C.C.: F.A.C.S.: F.R.C.O.G.: Dipl. Amer. Bd. Obs. and Gyn.

CONSULTING APPOINTMENTS

D. J. CAMPBELL, B.Sc. (Alberta): M.S., Ph.D. (Purdue).

H. B. COLLIER, M.A., Ph.D. (Toronto): F.R.S.C.

D. A. L. DICK, M.B., Ch.B. (Edinburgh): D.M.R.T.: F.F.R.: Spec. Cert. Ther. Rad. R.C.P.S.(C)

J. R. FOWLER, M.D. (Alberta): L.M.C.C.: Spec. Cert. Phys. Med. R.C.P.S.(C) and Alberta.

K. KOWALEWSKI, M.Ph. (Warsaw): M.D., Ph.D. (Brussels): Spec. Cert. Int. Med. R.C.P.S.(C): Spec. Cert. Tropical Med. (Antwerp).

D. B. LEITCH, B.A., M.B. (Toronto): F.R.C.P.(C): Spec. Cert. Paed. Alberta: F.A.A.P.

G. M. LITTLE, M.D. (Manitoba): D.P.H.

J. W. PEARCE, M.D., C.M. (Queen's): D.Phil. (Oxford).

E. J. K. PENIKETT, M.D., M.B., B.S. (London): M.R.C.S. (England): L.R.C.P. (London).

A. F. PHILLIPS, B.A. (Cambridge): M.A. (Cantab): M.B., Ch.B. (Edinburgh): M.D. (Edinburgh): D.M.R.T. (R.C.P. London and R.C.S. England).

D. B. SCOTT, B.A. (Toronto): Ph.D. (McGill).

E. S. O. SMITH, M.A., M.B., B.Ch. (Cantab.): L.R.C.P. (London): M.R.C.S. (England): D.P.H. (London): D.I.H. (England).

A. G. STEWART, B.A., M.A. (Queen's): Ph.D. (U.W.O.): M.C.I.C.

R. D. STUART, M.B., Ch.B., M.D., D.Sc., D.P.H. (Aberdeen): F.R.F.P.S. (Glasgow)

COURTESY APPOINTMENTS

E. S. ALLIN, B.Sc. (Alberta): M.D. (Toronto): L.M.C.C.: F.R.C.S. (England): F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta.

W. S. ANDERSON, B.Sc. (Alberta): M.D., M.S. (Toronto): L.M.C.C.: F.R.C.S.(C): F.A.C.S.: Spec. Cert. Gen. Surg. R.C.P.S.(C) and Alberta: Dipl. Amer. Bd. Surg.

J. A. AYLESWORTH, M.D. (Alberta): L.M.C.C.

G. J. CONRADI, M.D. (Jena): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Hamburg.

F. D. CONROY, M.D. (Alberta): L.M.C.C.: Spec. Cert. Urol. R.C.P.S.(C) and Alberta.

G. R. DAVISON, M.D., C.M. (Queen's): L.M.C.C.: Spec. Cert. Int. Med. (Tbc.) R.C.P.S.(C)

W. J. DOWNS, B.A. (Alberta): M.D., C.M. (McGill): L.M.C.C.: Spec. Cert. Int. Med. (Tbc.) R.C.P.S.(C)

E. F. FOY, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Ophthl. R.C.P.S.(C) and Alberta.

Z. HOAR, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Anaes. R.C.P.S.(C)

P. J. KIMMITT, B.Sc., M.D. (Alberta): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C)

J. C. McPHERSON, B.A., M.D. (Alberta): L.M.C.C.

J. P. MOREAU, B.A., M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Orth. Surg. Alberta: F.A.C.S.: Dipl. Amer. Bd. Orth. Surg.

L. P. MOUSSEAU, B.A., M.D. (Montreal): L.M.C.C.: F.A.C.S.: F.I.C.S.: Spec. Cert Gen. Surg. R.C.P.S.(C) and Alberta: LL.D. (Hon.) (Montreal): LL.M. (Hon.) (Laval)

R. F. NICHOLLS, M.D., C.M. (Queen's): Spec. Cert. O. and O.R.L. R.C.P.S.(C) and Alberta.

R. POIRIER, B.A., M.D. (Montreal): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C)

F. G. RAMSAY, M.D. (Manitoba): L.M.C.C.

H. H. STEPHENS, M.D. (Alberta): L.M.C.C.: Spec. Cert. Int. Med. (Tbc.) Alberta.

W. A. STRUTZ, B.A. (Saskatchewan): M.D. (Alberta): L.M.C.C.: F.R.C.S.(C): Spec. Cert. Gen. Surg. R.C.P.S.(C)

J. C. WARD, L.D.S., D.D.S. (Toronto).

N. W. WOYWITKA, M.D. (Alberta): L.M.C.C.: Spec. Cert. Ophthl. R.C.P.S.(C)

HONORARY APPOINTMENTS

N. E. ALEXANDER, M.D. (Alberta): L.M.C.C.: F.A.C.S.: Spec. Cert. Gen. Surg. Alberta.

J. E. CARMICHAEL, B.Sc., M.D., C.M. (Queen's): Spec. Cert. Anaes. R.C.P.S.(C) and Alberta: F.I.C.A.

H. H. HEPBURN, M.D., C.M. (McGill): L.M.C.C.: F.R.C.S. (Edinburgh): F.A.C.S.: F.R.C.S.(C): Spec. Cert. Neurosurg. Alberta.

C. V. JAMIESON, M.B. (Toronto): F.R.C.S.(C): Spec. Cert. O. and R.O.L. R.C.P.S.(C) and Alberta.

H. C. JAMIESON, M.B. (Toronto): F.R.C.P.(C): Spec. Cert. Int. Med. Alberta.

A. R. MUNROE, M.D., C.M. (McGill): F.R.C.S.(C): Spec. Cert. Gen. Surg. Alberta: F.A.C.S.

J. J. OWER, B.A., M.D., C.M. (McGill): F.R.C.P.(C): Spec. Cert. Bact. and Path. R.C.P.S.(C)

R. PROCTER, M.D. (Manitoba): L.M.C.C.: Spec. Cert. Radiol. Med. Alberta.

R. M. SHAW, B.A. (Dalhousie): M.D., C.M., D.P.H. (McGill): F.R.C.P.(C)

G. E. SWALLOW, M.D. (Manitoba): L.M.C.C.: Spec. Cert. Paed. R.C.P.S.(C) and Alberta.

HOUSE STAFF 1959-1960

5th Row: Drs. R. N. Eidem, C. E. McDonnell, J. R. Carroll, G. B. Duncan, I. W. Wilson, L. J. Clein, J. Gort, R. W. Mallen, T. C. Eid, B. J. G. Greenhill, S. W. Devine, J. S. Low, J. L. Gilmour, J. L. Brady.

4th Row: Drs. G. Goldsand, P. M. Crockford, W. Pisesky, J. Jimenez, G. Watkins, G. F. Bondar, B. M. Henderson, O. Retzer, D. W. J. Reid, D. M. Gilmour.

3rd Row: Drs. V. A. McPherson, Z. Perler, K. E. P. Kaye, J. A. Birkbeck, B. G. Rivas, W. J. Buie, N. R. Bertrand, P. R. Walker, P. B. R. Allen, D. M. Tod, I. H. Holmes.

2nd Row: Drs. N. J. Carriere, E. W. Gauk, P. M. Delamere, H. W. Bouwman, H. C. Meeker, A. G. Middleton, W. Pawluk, T. Enta, F. J. Bazant, W. W. Yakimets, A. Patrick, D. T. R. Hassard, L. J. Laidlaw.

1st Row: Drs. R. R. Weston, G. W. Hughes, R. Del Valle, D. R. Amies, E. Garcia, R. D. Henderson, M. E. Pourbaix, J. R. Brown, M. H. Finlayson.

HOUSE STAFF 1959-60

SURGERY— RESIDENTS:

W. J. Buie (Alberta)
H. W. Bouwman (Alberta)
P. S. Chari (Andhra, India)
W. Pisesky (Alberta)

SENIOR ASSISTANT RESIDENTS:

P. B. R. Allen (Alberta)
G. F. Bodnar (McGill)
A. S. Daniells (Nagpur, India)
W. Pawluk (Alberta)
O. Retzer (Alberta)
O. H. Silbermann (Alberta)

JUNIOR ASSISTANT RESIDENTS:

F. J. Bazant (Queen's)
T. C. Eid (Toronto)
J. Gort (Alberta)
V. A. McPherson (British Columbia)
D. M. Tod (Edinburgh)

FELLOWS:

D. Cardozo (St. Louis, Missouri)—Cardiac Surgery
M. A. Emery (McGill)—Basic Sciences
G. F. Francis (Alberta)—Basic Sciences
M. H. W. Friedman (Alberta)—Teaching Fellow
J. L. Gilmour (Toronto)—Cardiac Surgery
B. J. G. Greenhill (St. Mary's, London)—Basic Sciences
S. Husain (Osmania, India)—Basic Sciences
R. D. Morrison (Alberta)—Gastro-Enterology
J. Siegenberg (Witwatersrand, Johannesburg)—Basic Sciences
K. B. Wiancko (Alberta)—Basic Sciences
J. K. Young (Alberta)—Basic Sciences

MEDICINE— RESIDENT:

I. H. Holmes (Manitoba)

SENIOR ASSISTANT RESIDENTS:

D. R. Amies (Witwatersrand, Johannesburg)
R. N. Eidem (Alberta)
C. E. McDonnell (McGill)
M. E. Pourbaix (Alberta)
D. G. Young (Toronto)

JUNIOR ASSISTANT RESIDENTS:

M. H. Finlayson (Edinburgh)
H. W. Shewchuk (Alberta)
A. Vost (Glasgow)

FELLOWS:

D. L. C. Judge (Alberta)—Teaching Fellow
D. M. Fawcett (Alberta)—Endocrinology

PAEDIATRICS— RESIDENT:

G. M. Watkins (St. Andrew's)

SENIOR ASSISTANT RESIDENT:

J. A. Birkbeck (Edinburgh)

JUNIOR ASSISTANT RESIDENTS:

E. W. Gauk (Manitoba)
B. G. Rivas (Salamanca, Spain)

FELLOW:

E. J. Turner (Malta)—Teaching Fellow

OBSTETRICS AND GYNAECOLOGY

RESIDENT:

N. R. Bertrand (Alberta)

SENIOR ASSISTANT RESIDENT:

D. W. J. Reid (Alberta)

JUNIOR ASSISTANT RESIDENTS:

J. L. Barlass (Alberta)
S. W. Devine (Saskatchewan)

FELLOW:

E. G. T. Trueman (Alberta)—Teaching Fellow

PSYCHIATRY— RESIDENT:

L. J. Laidlaw (Alberta)

SENIOR ASSISTANT RESIDENTS:

A. J. Bennee (Witwatersrand, Johannesburg)
S. G. Little (Alberta)
J. Thompson (Belfast)
J. B. Van Stolk (Cape Town)

JUNIOR ASSISTANT RESIDENTS:

W. L. L. Bennett (Alberta)
N. J. Carriere (Alberta)
D. M. Gilmour (Alberta)
G. D. J. Letts (Alberta)

FELLOW:

B. M. Moore (Durham)—Teaching Fellow

PATHOLOGY

SENIOR ASSISTANT RESIDENT:

M. A. Scott (Alberta)

FELLOWS:

H. Bell (Alberta)
D. M. Buchanan (Alberta)
R. Swallow (Alberta)

OPHTHALMOLOGY

JUNIOR ASSISTANT RESIDENTS:

D. T. R. Hassard (Alberta)
A. Patrick (Glasgow)

OTOLARYNGOLOGY

R. Del Valle (San Carlos, Madrid)

ANAESTHESIA— RESIDENT:

J. M. Hagen (Edinburgh)

JUNIOR ASSISTANT RESIDENT:

R. R. Weston (Dublin)

RADIOLOGY— RESIDENT:

A. Gomm (Sydney, Australia)

MIXED JUNIOR ASSISTANT RESIDENTS

T. Enta (British Columbia)
J. D. Goode (Birmingham)
B. M. Henderson (Edinburgh)
G. Marshall (St. Andrew's)
H. C. Meeker (British Columbia)
A. G. Middleton (British Columbia)
P. R. Walker (Alberta)

INTERNES

J. L. Brady (Charing Cross, London)
J. B. Brown (St. Andrew's)
J. R. Carroll (Alberta)
L. J. Clein (London Hospital)
P. M. Crockford (Alberta)
P. M. Delamere (Queen's)
G. B. Duncan (Alberta)
L. H. Fenton (Charing Cross, London)
E. Garcia (Madrid, Spain)
G. Goldsand (Alberta)
R. D. Henderson (Edinburgh)
G. W. Hughes (Manitoba)
K. E. P. Kaye (Alberta)
J. S. Low (Alberta)
R. W. Mallen (Alberta)
J. H. Morris (Birmingham)
Z. Perler (Alberta)
M. J. Porter (Toronto)
D. T. Shaw (Alberta)
R. S. Smith (Queen's)
A. G. Van Orman (Alberta)
I. W. Wilson (Alberta)
W. W. Yakimets (Alberta)

6	DELIVERIES
108	X-RAY EXAMINATIONS
300	REHABILITATION TREATMENTS
71	EMERGENCY SERVICES
560	PHARMACY SERVICES
35,838	CU. FT. OF WATER
273,000	LBS. OF STEAM
35	OPERATIONS
1,300 EMPLOYEES 475 STUDENTS 180 MEDICAL STAFF	TOTAL PERSONNEL 1,955

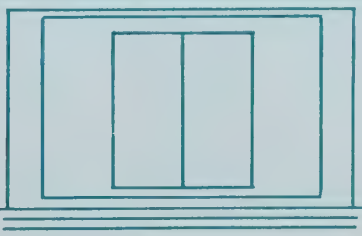
A TYPICAL DAY IN THE HOSPITAL

AVERAGE DAILY OCCUPANCY — 956 PATIENTS

PROVINCIAL LABORATORY TESTS (UNITS)	750
HOSPITAL LABORATORY TESTS (UNITS)	2,035
BLOOD TRANSFUSIONS	20
X-RAY FILMS	326
GENERAL ANESTHETICS	35
MEALS SERVED COST OF FOOD	4,124 $1,281.00
ELECTRIC KW HOURS	14,600
CENTRAL SUPPLY SERVICES	4,106
LBS. OF LAUNDRY PROCESSED	13,750

UNIVERSITY OF ALBERTA HOSPITAL

60
ADMISSIONS



60
DISCHARGES

320
OUT-PATIENT
TREATMENTS

MEDICAL STAFF COMMITTEES

MEDICAL ADVISORY BOARD

R. K. Thomson
E. A. Gain
D. R. Wilson
W. C. MacKenzie
J. R. Vant
M. R. Marshall
J. K. Martin
K. A. Yonge
M. T. F. Carpendale
H. E. Duggan
J. W. Macgregor
R. E. Bell
H. R. MacLean
D. F. Cameron
F. G. Ramsay
J. O. Metcalfe
B. Michalyshyn
O. Rostrup

EXECUTIVE OF MEDICAL STAFF

D. F. Cameron
K. A. C. Clarke
J. O. Metcalfe
J. Dvorkin
D. C. Johnston
A. B. McCarten
T. R. Nelson
R. J. Johnston
J. W. Macgregor

MEDICAL RECORDS COMMITTEE

R. J. Johnston
T. R. Nelson
W. C. Taylor

COMMITTEE ON THERAPEUTICS AND PHARMACY

F. B. Rodman
J. Dvorkin
G. L. Willox
W. Maday

HOUSE STAFF COMMITTEE

A. S. Little
D. R. Wilson
W. C. MacKenzie
J. R. Vant
M. R. Marshall
J. K. Martin
K. A. Yonge
M. T. F. Carpendale
E. A. Gain
H. E. Duggan
J. W. Macgregor
R. E. Bell
H. R. MacLean
F. G. Ramsay
K. A. C. Clarke
G. W. Cameron
L. C. Grisdale
R. C. Harrison
T. R. Nelson

LIBRARY COMMITTEE

K. A. C. Clarke
W. D. Frew
J. W. Duggan
R. S. Van Alstine
R. S. Fraser
A. B. McCarten

TISSUE COMMITTEE

G. L. Willox
J. Dvorkin
T. R. Nelson
J. W. Macgregor

COMMITTEE ON OPERATING ROOM SERVICES

W. C. MacKenzie
M. R. Marshall
J. R. Vant
O. Rostrup
T. S. Wilson

COMMITTEE ON CLINICAL RESEARCH

D. R. Wilson
R. E. Bell
R. C. Harrison

COMMITTEE ON LABORATORY METHODS

J. W. Macgregor
R. D. Stuart
H. B. Collier
R. E. Bell
D. R. Wilson

COMMITTEE ON LABORATORY SERVICES

D. R. Wilson
W. C. MacKenzie
J. R. Vant
R. E. Bell
J. F. Elliott
E. Hitchin

Medical Building

DEPARTMENT OF MEDICINE

Dr. A. C. McGugan,

Superintendent

Sir:

The year 1959 has been an active one for the Department of Medicine. There has been expansion into new areas of special services, diagnostic facilities, and the graduate education program has become increasingly consolidated. Clinical investigation is increasing in a satisfactory manner. Undergraduate medical education has been considerably modified for the final year students.

With respect to Special Services, the addition of Dr. B. J. Sproule to our staff has made possible the development of a pulmonary division. During the year modern laboratory techniques have been initiated for the investigation of respiratory problems. This work is still in its preliminary stages. As equipment becomes available, more precise methods of gas analysis and techniques for measuring the various subdivisions of lung function will be set up. Preliminary steps have been taken to create a section of inhalation therapy within the division. This section will be responsible for the maintenance of a number of intermittent positive pressure breathing machines and a variety of types of nebulization apparatus. The development of the pulmonary division should be of considerable assistance in the management of patients in the poliomyelitis ward, which is now under the direction of Dr. Sproule. This division will work in close collaboration with the cardiovascular division in the management of complex cardio-pulmonary problems and in the prosecution of clinical research in these mutually dependent fields.

The cardiovascular division has continued its active program in collaboration with the Department of Surgery in the diagnosis and management of congenital heart disease. A detailed account of the Special Services activity of this division appears in the Special Services report. An active clinical investigation program is maintained. During the year Dr. J. Woods, who had assumed a Canadian Life Underwriters research fellowship, left to assume an academic post in Australia. During his time here, he completed his studies on the blood supply to heart muscle in white people complementing his previous studies in Africa on Bantu natives.

In the division of endocrinology and metabolism, the development of methods for blood steroid determinations and estrogen assays have been completed, and these methods are now in current use in the clinical investigation program. The addition of Dr. David Fawcett to the Division as a Fellow, supported by Special Services, will be of great assistance in view of his dual qualifications as a graduate in medicine, as well as holding his Ph.D. in biochemistry. His preliminary studies have been concerned with the relation of steroid hormones to the various protein fractions of the blood. During the coming year it is anticipated that the research program in thyroid disease will be extended. The clinical research program in this division includes continuing investigation of adrenal function in relation to diabetes, adrenal function in relation to various thyroid disorders, physiological studies in relation to some phases of estrogen metabolism, and in collaboration with the Department of Ophthalmology adrenal cortical studies in relation to glaucoma.

The hospital administration has generously provided the services of a full-time teaching nurse, Miss Ruth Shaw, to assist in the development of the diabetic educational program. With the assistance of Dr. Gordon Brown and the Dietetic Department, a well rounded instructional program for all diabetic patients is now a daily activity in this area of the department. During the coming year this program will be extended to the out-patient diabetic clinic, which is presently taking shape. I wish to take this opportunity to acknowledge the generosity of Mr. and Mrs. M. D. Muttart in providing a diabetic reference library and the audio-visual aids, both of which are in daily use in the patient educational program.

In the division of neurology, development of the muscular dystrophy research program is continuing. During the past year thirty patients were investigated from

a neuromuscular and genetic point of view. This program has now reached the point where the services of a research chemist are required. It is hoped that when a suitable candidate has been appointed that a laboratory program can be developed in collaboration with the Department of Biochemistry.

The out-patient department has continued to expand and for the past year has been an increasingly valuable area, particularly for undergraduate teaching in the fourth year. The first full-time Teaching Fellow, Dr. D. L. C. Judge, was appointed this year by the Faculty of Medicine to assist in the clinical instruction of fourth year medical students. With the transfer of the out-patient department to the new clinical services wing in the near future, teaching in this area should become much more efficient and valuable both for the undergraduate and graduate students. The need for a full-time clinical director to develop this area of the hospital and the medical school is becoming obvious. It is hoped that an establishment for this position will be realized without delay.

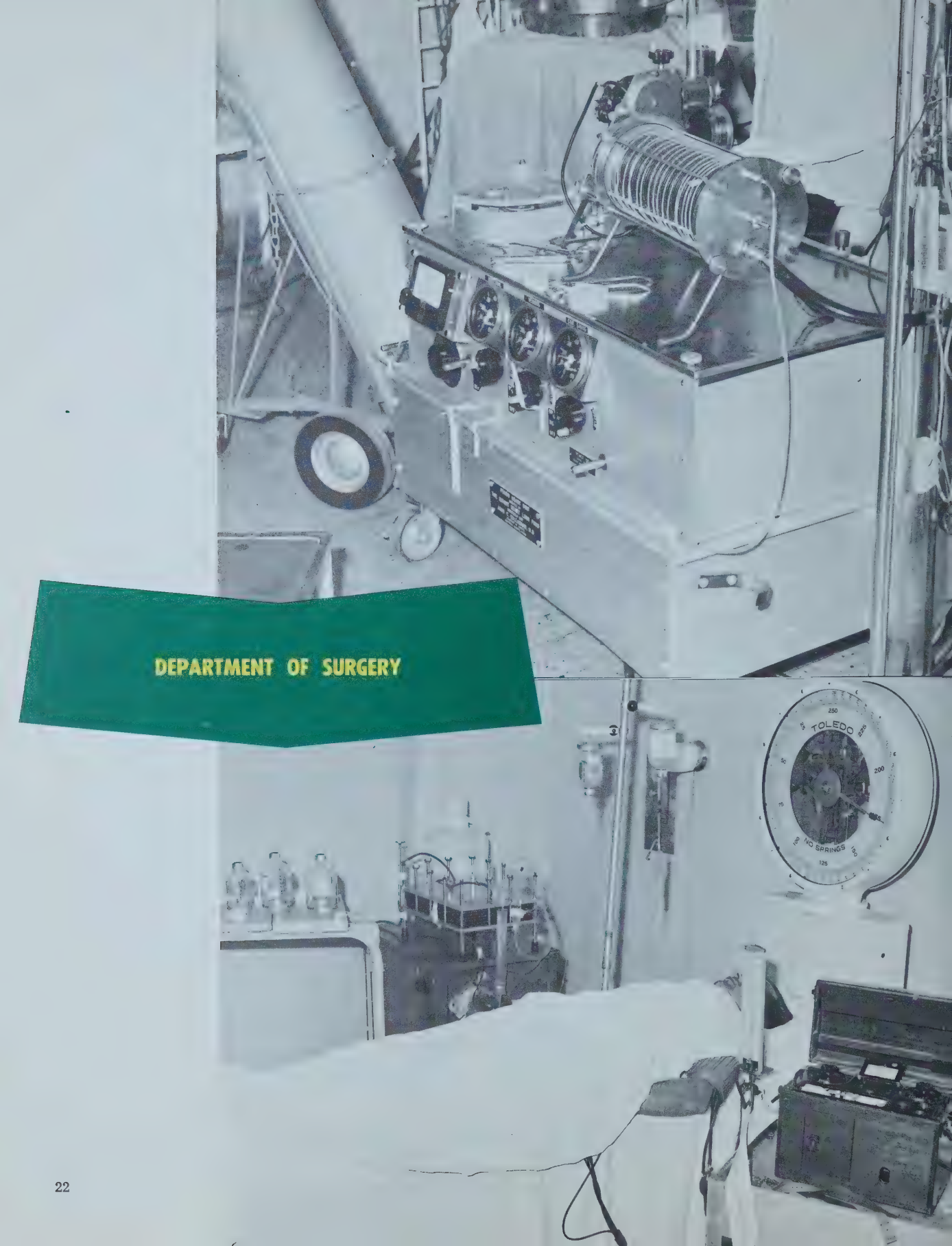
With the increasingly important role that the facilities and staff of the department are providing for the citizens of this province, the pressure on existing bed facilities is beginning to hamper the services which the hospital provides in this regard. During the coming year solutions to this problem will have to be found.

With respect to graduate teaching, the formal program which was initiated last year is now in its second year of operation. This program consists of a variety of teaching sessions, such as seminars, graduate lectures, and small group ward teaching providing approximately seven to ten hours of graduate instruction per week, in addition to the regularly constituted rounds within the department. Candidates for certification and fellowship examinations in the Royal College in their final year of preparation are subjected to written and clinical examinations to determine their level of competence and to assess their fitness to proceed with further training.

In conclusion, on behalf of the department I would like to express my sincere appreciation of all the assistance and encouragement which has been so generously given by the hospital administration.

Respectfully submitted,

D. R. Wilson, M.D.,
Professor of Medicine



DEPARTMENT OF SURGERY

Dr. A. C. McGugan,

Superintendent

Sir:

I am honoured and privileged to present to you at this time a report of the activities of the Department of Surgery in the University of Alberta Hospital for the year ended December 31, 1959.

The Department of Surgery in our hospital has continued to play an important role in keeping the University of Alberta Hospital one of the major medical centers of western Canada. Our experience has been similar to the other departments in that bed occupancy has been at a very high level throughout the year. Needless to say, the Department of Surgery has been aided in its every endeavour by the members of other clinical departments within the hospital, and, as has been pointed out in previous reports, team effort produces the type of results we are looking for in the total surgical care of the patients in our institution.

In common with all major teaching institutions on this continent, we have had for a number of years a Hospital Infection Committee, which has consisted of Doctor T. S. Wilson, as Chairman, and Doctor R. D. Stuart, Professor of Bacteriology. The members of our committee are of the opinion that the problem as far as infections are concerned is very satisfactory, and now they are also of the opinion that patients admitted with infections are probably our most serious problem. They emphasize the fact that continued vigilance and immediate isolation, which has been a feature of our hospital therapy for some period of time, is unquestionably responsible for the very satisfactory situation at the moment.

In the Division of Orthopaedic Surgery, under the direction of Doctor O. Rostrup, a Research Paralytic Hand Unit was started in the fall of 1959 under the immediate direction of Doctor Gordon Wilson, a member of the Orthopaedic staff. Doctor Wilson attended a course on "Upper Arm Splinting" at the University of Southern California. In addition, Mr. Littlefair from the Department of Rehabilitation also attended the course through the Rehabilitation Grant from the Federal Government. Mr. Stauffer of the Edmonton Artificial Limb Company attended the course as well. This Clinic meets once a week for a review of all pertinent cases. They are presently seeing polio cases and quadriplegics, usually resultant from cervical spine injuries, but hope to add arthritic hand deformities at a later date.

In the Neurosurgical Division, Doctor Speakman has given impetus to surgery of the basal ganglion for Parkinsonism and prepared both an exhibit entitled "Thalamotomy for Extrapyramidal Disease" and a paper on this subject for the Canadian Medical Association, Alberta Division, meeting in October, 1959. Doctor Peter Allen presented to the Neurosurgical Section of the Canadian Medical Association, Alberta Division, meeting a review of the cases of brain abscess in the University of Alberta Hospital.

In the Division of Thoracic and Cardiovascular Surgery, the rotating disc oxygenator has been working extremely well in open heart cases. The Post-operative Recovery Room on Station 56 has been used regularly and has proved to be a useful adjunct in the management of these difficult surgical problems.

Main Vessel Replacement: During the year, Doctor Callaghan and Doctor Couves have replaced Nylon with Dacron and Teflon grafts in main vessel replacement because of experimental evidence favouring the former. Replacement, not

only of the abdominal aorta, but on three occasions of the thoracic aorta has been undertaken using plastic grafts.

Infant Heart Project and Artificial Heart Valves: Doctor Callaghan has continued his research, aided by Doctor Cardozo, on the Infant Heart Project supported by the Federal Government Department of Health and Welfare. These workers have, in addition, continued to study the use of artificial heart valves supported by a grant from the Alberta Heart Foundation.

Isolation and Perfusion Techniques: During the past year, Doctor Couves and Doctor Margolus have continued their interests in expanding our methods of isolating and perfusing limbs in organs for malignancy. They have treated some twenty-four patients by this method; these have been equally divided between limb perfusions and pelvic perfusions. For the most part those in the pelvis are patients with advanced cervical or ovarian carcinomas, those in the limbs are usually patients with malignant melanoma. The perfusions have been adjunctive and palliative. These workers have been studying in patients as well as in animals the variable of leak into the systemic circulation, the drug sensitivity, the rate of flow at the time of perfusion, and other factors. This work, we hope, will be continued in the ensuing year.

Venous Thrombosis: This work began as an experimental study on the use of an electrode for producing experimental venous thrombosis. It has been continued in the experimental laboratory, but this year has been transferred to the University of Alberta Hospital to include the clinical aspects of this disease as well. Through the cooperation of the Ortho Company of Canada, Doctor Couves and his co-workers are beginning a rather detailed study on the use of human fibrinolysin on human thrombotic disease. By and large patients being treated will be those with ileofemoral thrombosis, pulmonary embolism, deep venous thrombosis postoperatively, and retinal artery and venous thrombosis.

The Adjuvant Chemotherapy Program: This program has been continued and carcinomas of the lung and stomach are included in this prolonged study. It has been enlarged to include the study of cell counts in peritoneal washings in patients who have malignancies of the gastrointestinal tract. It has been proven in a pilot study in other institutions that the number of cells which are present bear a great deal of relationship to the over-all prognosis in the five-year survival rate.

A Study of Irreversible Shock: A room has been set aside and partially equipped in the Research Wing of the hospital for the base line study of patients in irreversible shock. Again this is a clinical experimental study. We are investigating the cardiogenic aspects of irreversible shock in animals and in patients.

In the Division of Urology in the past year, the volume of work which has gone through the Cystocopic Department has further increased to the point that the number of patients treated in this area of the hospital represents a 60 per cent increase over the years 1956 and 1957. The service to both in-patients and out-patients in the new area which is envisaged for this department, after the opening of the Service Wing, will be enhanced by its improved facilities. The excellent co-operation from the Department of Anaesthesia integrating their services with this Department's schedule has in no small way been responsible for the volume of cases which they have been able to handle. It has been gratifying to the Director of the Division of Urology to have their current Colombo Plan Fellow, Doctor Chari of the University of Hyderabad, request and obtain permission from the Governments of India and Canada for a one-year extension of his urologic training at the University of Alberta Hospital.

Under the persistent scrutiny of Doctor M. T. F. Carpendale, Director of the Department of Rehabilitation, it appears that the application of the principles of urinary bladder rehabilitation, as developed at the Long Beach Veterans Rehabilitation Centre where members of the Urologic Division visited, are showing results. Almost all the paraplegic bladder patients are being rehabilitated satisfactorily. Organization of facilities is now necessary and proceeding to supervise the continued follow-up observations of these people on an out-patient basis.

The artificial kidney unit is being utilized continually on an experimental project in the McEachern Cancer Research Laboratory, and a team familiar with its use is always available for the emergent situation that arises within the hospital.

During the last year, the Cleft Palate Rehabilitation Clinic has continued to function within our institution. The group meets regularly, examines and makes recommendations for treatment in children pre- and postoperatively. This Clinic will over the years make a very real contribution to the rehabilitation of those patients who have been unfortunate enough to be born with this anomaly.

Doctor R. C. Harrison and his group in the Gastroenterological Division of the Department of Surgery are pursuing studies with respect to the acidity and method of controlling acidity in the patient with duodenal and gastric ulcer. They are also trying to determine whether patients with cancer of the stomach and pernicious anemia lack the normal control mechanism for the suppression of acid secretion.

Studies on the Biochemistry of Human Cancer: Doctor R. A. Macbeth, Associate Professor of Surgery, has continued during the past year his studies on human neoplasms. This has been a particularly interesting piece of work in that very few people in the world today are investigating the biochemistry of human neoplasia, although many are doing extensive studies on induced tumours in animals.

A new institution in the past year has been the introduction of Trauma Rounds. These have been a joint responsibility of the Department of General Surgery and the Department of Orthopaedics under the auspices of Doctors Rostrup and Harrison. They meet once a month and present various complicated problems in the field of trauma, particularly those with multiple injuries. This type of presentation fills an important need in our teaching program and has been very well received.

Tumour Rounds have been continued as a joint presentation between the members of the General Surgical Staff and Doctor D. A. L. Dick and Doctor A. F. Phillips of the Cancer Diagnostic Clinic. While this teaching exercise started out to begin with as an investigation of various problems concerned with cancer of the breast, it has now developed to the point where all tumour problems are considered on a biweekly basis.

Doctor R. A. Macbeth and Doctor H. T. G. Williams have continued the Peripheral Vascular Clinic weekly in addition to making an important clinical contribution on a consulting basis available in the institution. They have continued their study of peripheral vascular disease from a research standpoint.

The following honours were received by members of the Department of Surgery during the past year:

Doctor W. C. MacKenzie:

A Sommer Memorial Lecturer, Portland, Oregon, April, 1959.

The William Mitchell Banks Memorial Lecturer, Liverpool, England, June, 1959.

A Visiting Professor at St. Bartholomew's Hospital, London, England, July, 1959.

Appointed Dean of the Faculty of Medicine, University of Alberta, September 1, 1959.

Doctor R. C. Harrison was awarded a Nuffield Travelling Fellowship, April 1 to September 1, 1959, and was also awarded membership in the Society of University Surgeons in 1959.

Doctor S. Kling was invited into membership in the Canadian Association of Clinical Surgeons (Western Division) in 1959.

Doctor G. W. Cameron was awarded a Canadian Exchange Travelling Orthopaedic Fellowship to Great Britain in company with four American surgeons.

Doctor H. T. G. Williams received Fellowship in the Royal College of Surgeons of Canada in January, 1959, and also received an Outdoor Appointment to the Attending Staff of the University of Alberta Hospital in June, 1959.

The Department of Surgery, in common with the other major clinical departments within the hospital, owes a debt of gratitude to the Special Services Committee of the University Hospital for its continued cooperation and support in many of the projects which have been outlined and in others which have been proposed for the ensuing year.

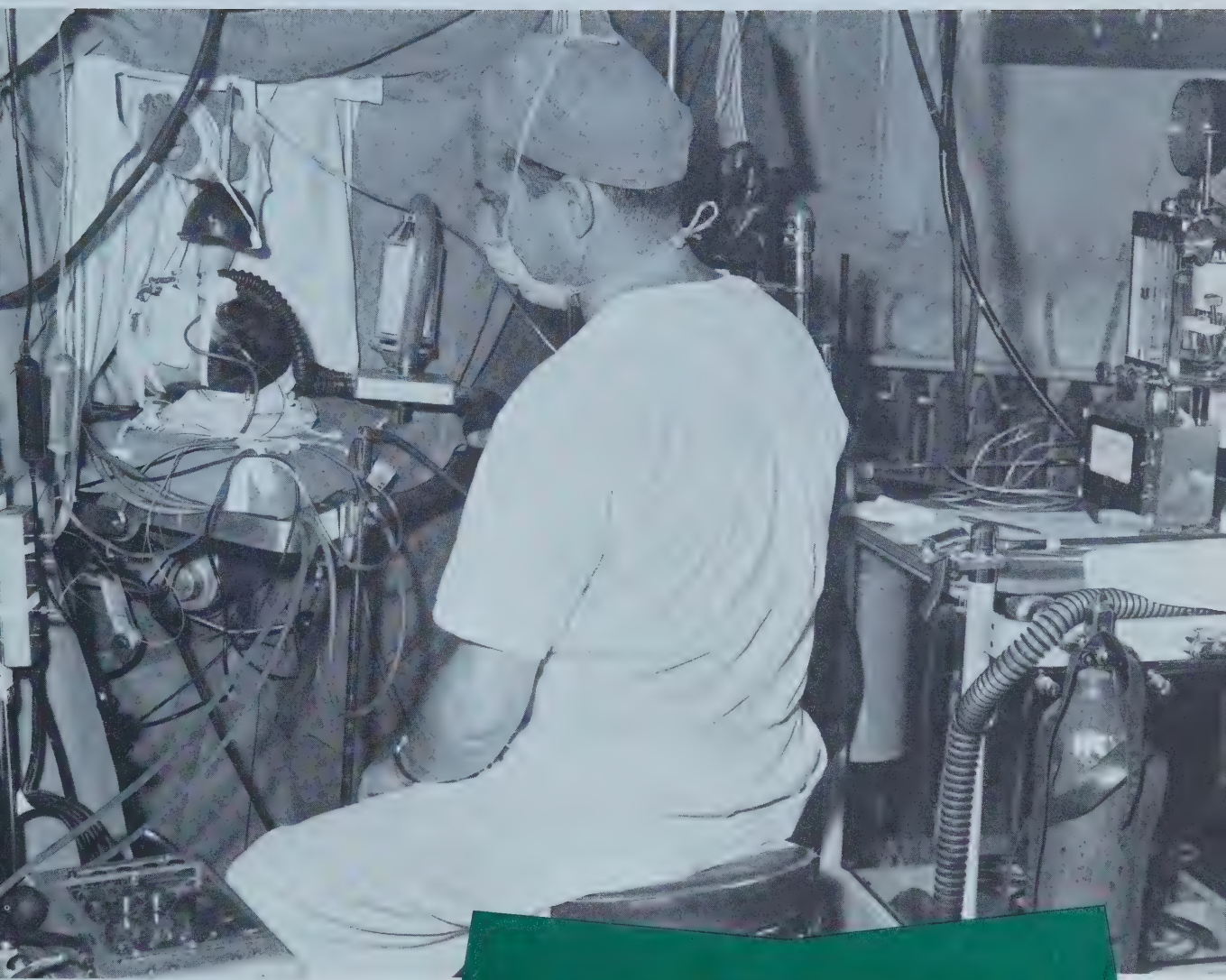
I am delighted at this time to be able to pay tribute to you, Doctor McGugan, to Doctor Snell, Mr. Adshead, Mr. Sherwood, Miss Clark, and all the other members of the Administration who have been so willing to cooperate with the Surgical Department at all times, and whose cooperation has meant so much to the progress that we have attempted to continue during the last year.

All of which is respectfully submitted,

WALTER C. MACKENZIE, M.D.,

Director, Department of Surgery

"Cardiac Resuscitation Unit" used by the Division of Thoracic and Cardiovascular Surgery.



DEPARTMENT OF ANAESTHESIOLOGY

Dr. A. C. McGugan,

Superintendent

Sir:

The following is the Annual Report of the Department of Anaesthesia for the calendar year 1959.

During the year there was a relatively small increase of 513 in the total number of cases. The backlog of cardiac surgery has been cared for and from now on the volume of this type of work should be about one-half of that in 1959. This will provide a considerable amount of operating time for the other branches of surgery and this was particularly noticeable in November and December 1959 when the operating room was able to handle all of the work presented without undue delay.

	Total Anaesthetics	Elective	Emergent
1958	8,210	7,321	889
1959	8,723	7,559	1,164

The Anaesthetic Recovery Room cared for 7,682 post-anaesthetic patients as compared to 6,800 cases in 1958. This room has functioned exceptionally well in spite of the lack of staff and space and this can only be attributed to the excellent nursing staff operating this service. We still look forward to the time when this will be a 24 hour service, which we believe will be essential with the increase in emergency work which is expected with the opening of the new Emergency Department.

There was little change in anaesthetic agents and methods with one exception, and that is the increasing use of Fluothane. This is a relatively new non-explosive anaesthetic agent, this development was most welcome because of the marked increase in the use of electrical apparatus in the operating room.

During the year Dr. Zella Hoar, a former member of the department returned on a part-time basis and will resume full-time practice in July 1960. The services of two more anaesthetists have also been obtained commencing in July 1960. It is believed that this staff of eleven (11) will be more than adequate for the work available.

An active teaching program has been carried out and we have been pleased to note the continued interest of general practitioners in taking short refresher courses in anaesthesia in this department.

May I again thank the administrative staff for their cooperation and assistance.

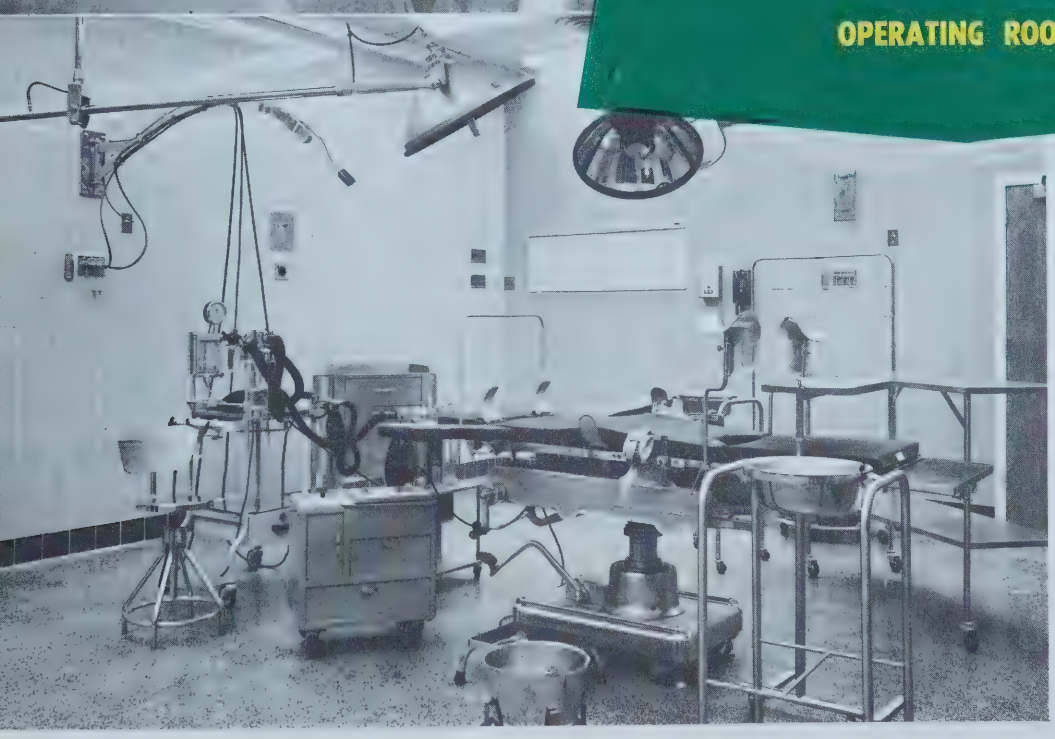
Respectfully submitted,

E. A. Gain, M.D.,

Director

Operating Room, 1915

OPERATING ROOM



Operating Room, 1960

Dr. A. C. McGugan,

Superintendent

Sir:

The following is the report of the Operating Room of the University Hospital of Alberta, year ending December 1959.

Total Major Operations—1959	4,285	
Total Major Operations—1958	3,288	
		Increase 997
Total Minor Operations—1959	4,518	
Total Minor Operations—1958	3,738	
		Increase 780
Total Cystoscopic Procedures 1959	3,598	

Classification of Operations:

General Surgery.		
Major	1,738	
Minor	892	2,630
Gynaecological Surgery:		
Major	485	
Minor	1,027	1,512
Genito-Urinary Surgery:		
Major	158	
Minor	62	220
Orthopedic Surgery:		
Major	684	
Minor	701	1,385
Thoracic Surgery:		
Major	277	
Minor	32	
Endoscopies	129	438
Plastic Surgery:		
Major	314	
Minor	238	552
Ophthalmology:		
Major	311	
Minor	277	588
Ear, Nose and Throat:		
Major	28	
Minor	382	
T. & A.	458	
Endoscopies	8	876
Dental Surgery:		
Extractions:	213	213
Neuro-Surgery:		
Major	290	
Minor	99	389

Anaesthetics in Operating Room

Cyclopropaine	2,043
Trilene	19
Ether	1,412
Fluothane	767
Caudol Block	13
Nitrous Oxide	7
Brachial Block	56
Local Block	8
Local	1,070
Spinal	336
Pentothol	3,075
None	7
	8,803

Respectfully submitted,

R. Coombs, R.N.,

Supervisor,

Operating Room

Dr. A. C. McGugan,

Superintendent

Sir:

The calendar year, 1959, has brought us the usual number of interesting clinical problems and has contributed its share of triumphs, as well as its heartaches, to our department.

Our obstetrical admissions and our deliveries have increased by 6.9%. This has been due to the increase in the patients from the Out-Patient Clinic (200 admissions; 174 deliveries) which have been admitted during the past year. This has provided clinical material and complications for the benefit of our resident staff.

The interest in our Prenatal Classes has continued, and during the year, 190 women have visited, at least five times, to receive instruction and to perform the exercises which are advocated in our classes. These women have been enthusiastic and have contributed to the increased use of trans-vaginal Pudendal block, and the decreased use of sedation, which has provided a happy atmosphere at many a delivery. This has maintained our clinical interest, has proven a point of instruction, and has produced its measure of satisfaction.

Our program of early ambulation and the use of the perineal heat lamp have contributed to patient comfort and satisfactory recovery at discharge from hospital. This has been, as well, aided by the postpartum exercise class conducted by a member of the staff of the Rehabilitation Department. To them, and to Dr. Carpendale, we owe our thanks for this contribution. Our complications during the postpartum state have been, on the whole, minimal in character. Our intrapartum complications have been few and while it is true we obviated our difficult vaginal deliveries by the use of Caesarian section, nevertheless, the Caesarian section rate for the past year was still under 5%, which, for a hospital of our kind, is a very satisfactory level.

322 patients with Rh negative factor were delivered. Of these, 51 showed an antibody titre of varying degree, and of their infants, 26 received, in all, 38 exchange transfusions. There were 7 stillbirths and 3 neonatal deaths in this group. In those Group O mothers whose babies showed an ABO incompatability (14 in number) 10 babies received 16 exchanges; all recovered. Those babies who exhibited hyperbilirubinemia ($>$ 20 mgm.%) were 14 in number; of these, 5 needed exchange transfusion. Four babies born elsewhere were admitted; all were exchanged to a total of 9 exchange transfusions. This indicates our usefulness as a center to which these mothers may be admitted and where these babies are offered an increasing chance of survival. These procedures provide one of our contributions to the welfare of the Province as a whole. At the same time, our thanks are due to the Red Cross Blood Transfusion Unit and to Dr. D. I. Buchanan, and to the staff of the Department of Paediatrics.

There were 69 neonatal infections, a decrease over previous years. 61 were pustules; 2 were eye; 2 were finger; 2 were vagina; and one was a bladder infection. As well, one baby developed thrush. The vigilance of Dr. Horner and his Infection Committee, is again to be commended, and our thanks to Dr. R. D. Stuart and his staff in the Bacteriology Department are hereby acknowledged.

Our Perinatal Rounds each month have continued to produce informative and creative discussion which redounds to the benefit of both our attending and our resident staff and to those members of the Paediatric Department. Dr. J.

Stirratt of the Pathology Department and other invited colleagues, have again contributed in great measure to the success of these rounds.

Dr. E. G. Tess Trueman, our Teaching Fellow, has contributed greatly to interne and resident teaching, and to her, our thanks are due.

Our research activities, undertaken jointly by Dr. T. R. Nelson and Dr. W. C. Taylor, of Paediatrics, into the problems of respiration of the newborn and the neonate, especially the prematures, has commenced, and it is hoped that during the year 1960, some important information and advance in care and technique will be developed.

Dr. N. R. Bertrand, our Resident, has, together with Dr. J. A. L. Gilbert of the Department of Medicine, carried on the investigation of the problems of diabetes and pregnancy, both actual and incipient.

The table below denotes the obstetric admissions and deliveries for the past five years and might be of interest for comparison:

Year	Admissions	DELIVERIES		
		Per Vaginum	Caesarians	Totals
1955-56	1685	1489	83	1572
1956-57	1880	1645	88	1733
1957-58	2061	1853	99	1952
Yr. 1958	2108	1882	87	1969
Yr. 1959	2254	1969	103	2072

Here follows a statistical summary of our 1959 obstetrical admissions:

Admissions	2,254
Undelivered	182
Vaginal deliveries	1,969
Abdominal deliveries: Initial—56 (Caesarians) Repeat—47	103
Total deliveries	2,072

Maternal deaths—1 (Died 30 weeks undelivered)

Babies Delivered—

Liveborn	Male	1,043	including Twins	Male 9 pr.
	Female	1,002		Female 5 pr.
				Mixed 4 pr.
Deadborn	Male	29		
	Female	16		

Perinatal Deaths—

Stillbirths	45
Neonatal (7 days)	44
Over 7 days	1

Our staff activities have included instruction to both second and third year undergraduate students, intern and resident training, a course of lectures to undergraduate nurses, and, in conjunction with Paediatrics, two courses in Premature Nursing Care for Nurses. We have also taken part in the instruction in the Postgraduate Nursing Course in Obstetrics and in the School of Physiotherapy.

Our thanks are due to the kindly and intelligent care provided for our patients by our Case Room staff and the sympathetic and excellent nursing care provided by our Supervisors and nurses on the wards. And, as well, to Miss Legault and her staff, in both the Premature and Mature baby nurseries do we owe thanks for their unremitting care of our newborns.

Our gynaecological admissions have increased 5% and our surgical procedures 7% over the preceding year. Our nursing routine has remained constant, has provided comfort for our patients and they, in turn, have provided us with but few complications. Our practice of taking vaginal cultures on all admissions has persisted and we have instituted a program of routine vaginal and cervical cytology interpretation. We have maintained our routine of active therapy in imminent and incomplete abortion and in so doing, have mimimized blood loss and the need for blood transfusion. Our examining room has been used extensively (2,029 patients have been examined) and has proved to be both a venue for consultation among attending staff and for intern and resident instruction.

A five year survey of gynaecological admissions and operations may be of interest for comparison:

Year	Admissions	OPERATIONS Major	Minor	Total
1955-56	1409	420	809	1229
1956-57	1331	464	769	1233
1957-58	1439	457	799	1256
Yr. 1958	1548	500	919	1419
Yr. 1959	1629	495	1027	1522

Our admission waiting list grows longer each month as does the interval between admission and operation. Our routine of systematic room cleaning has continued and has been a factor in maintaining our low incidence of post-operative infection. During the year, 3 patients were admitted with infections, and 3 patients developed post-operative infection, all Staphylococcus aureus.

Our thanks are due to the gynaecological nursing staff for their intelligent, sympathetic and unremitting care.

During the year, Dr. T. R. Nelson was appointed geographic full time Associate Professor and Dr. W. F. Ferguson, Assistant Professor; both are based in the University Hospital. This has provided our department with valuable assistance in the care of our out-patients and the teaching of our undergraduate and graduate students.

Our department has always enjoyed the friendliest cooperation with the medical directors, the administrative officers, the School of Nursing, and the various ancillary staffs in the hospital: and this past year provided that same friendly liaison. For this, may I, on behalf of my staff, acknowledge our grateful appreciation.

All of which is respectfully submitted,

J. Ross Vant, M.D.,

Professor and Director,

Department of Obstetrics and Gynaecology

PYSCHIATRY

Doctor A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit to you a report of the activities of the Department of Psychiatry for the year ending December 31st, 1959.

Clinical services have been maintained throughout the year to the full bed capacity of the Department. The demand for clinical services remains in excess of our bed capacity in spite of the great increase last year in beds allotted.

A major advance has been made in the establishment of a Unit for Emotionally Disturbed Children. This is for diagnosis and short-term treatment. This Unit should form an important link in the chain of expanding psychiatric services for children in this Province. It is intended to provide further diagnostic facilities than have hitherto been possible through the Guidance Clinics, by providing round-the-clock observation and facilities for laboratory investigation. A short term period of treatment is intended to initiate either continuing treatment on an out-patient basis or further in-patient treatment in the Residential Centre being organized at Red Deer by the Provincial Department of Health. In keeping with our policy that Psychiatry function not in isolation but in close integration with other fields of medical care, the Unit has been located as an integral part of the Paediatric Ward on the Second Floor and is administered in close liaison with the Department of Paediatrics. The addition to our staff of Doctor Harold Barker has greatly enhanced the strength of the Department in the area of Child Psychiatry.

The teaching function of the Department has been consolidated during the year, and furthered by the organization of clinical clerkships for the fourth year medical students. This is evidently proving to be a stimulating experience for the students. The in-service teaching of nurses has been extended to meet the eager demand from the staff nurses themselves. The lecture program to the student nurses has been entirely revised with an addition of an extra large block of teaching time. The addition to our staff of Mrs. L. Macdonald as Clinical Instructor has given great impetus to our teaching function for the nurses both graduate and undergraduate.

The Post-graduate Residency Training Program in Psychiatry has been consolidated. The increase in the number of our residents to nine has not only led to the improvement of our clinical service but also increased the stature of the Department for post-graduate training.

Through the ready support of the Provincial Department of Health, it has been possible to establish this year a position of Research Fellow. Doctor M. B. Moore in this position has been engaged largely in the study of research methodology. As a preliminary to developing psychiatric research in the Province he has been developing a system whereby the case records for psychiatric patients throughout the various hospital and clinic facilities in the Province can be properly utilized for research surveys. He has also been carrying out some epidemiological research correlating the conditions of work with frequency of reported illness.

As for out-patient services, the Department is not able to keep up with the demand. A Psychiatric Clinic is now held weekly at the downtown Out-Patient Department. This is unable to cope adequately with the demand.

The clinical service of the Department generally has been greatly enhanced by the addition of two part-time psychiatric social workers, Mrs. L. Ayers and Mrs. M. Siegenberg.

Regretably, ill health demanded that Dr. S. Spaner should take prolonged leave of absence. Doctor H. Pascoe has, during his absence, taken over much of the D.V.A. Psychiatry.

On behalf of all the members of our Staff I should like to express deep appreciation for the helpful cooperation of the Nursing Staff and for the ready assistance, encouragement and guidance of the Administrative Staff.

Respectfully submitted,

K. A. YONGE, M.D.,

Professor and Director

mealtime

DEPARTMENT OF PAEDIATRICS

playtime

Dr. A. C. McGugan,

Superintendent

Sir:

It gives me great pleasure to submit the annual report of the Department of Paediatrics for the year 1959.

With a re-allocation of beds on the Paediatric Wards there are now a total of 128 beds, of which 8 are to be used for emotionally disturbed children. Bed occupancy has been satisfactory, and waiting lists held to a minimum. The greatest demand is on the beds on Station 36 (children 5 years and up). The isolation section of this ward is constantly filled—mainly, in the last few months, by infants admitted with gastro-enteritis due to pathogenic E. Coli. Total admissions for the year were 3,128, an increase of 503 over last year. There were 56 deaths with 48 autopsies. The proportion of patients admitted under differing specialties remained the same, with 50% arranged by paediatricians. Average stay was 12 days.

In the Out-Patient Department 2,049 patients were seen—an increase of 250. Of these, 534 were new patients, and 123 were admitted to the wards. Dr. N. Duncan runs a cardiac clinic once monthly, and to this has been added an epilepsy clinic under my supervision. Further specialty clinics are planned. It is of interest to note that an analysis of attendances in Emergency shows that a monthly average of 450 children under 16 years were seen, and that some 50 of these were admitted.

The Department enjoys a close working relationship with other specialties. For Station 23, a unit for emotionally disturbed children under the supervision of the Department of Psychiatry, close liaison and joint planning has been maintained. The Department co-operates with the Department of Surgery in their Cleft Palate Clinic. Next year this Department, with Otorhinolaryngology, plan a pre-school speech and hearing clinic. Plans for a Poison Information Service are being implemented under the direction of the Provincial Department of Health.

Mr. J. J. Harrington, the senior teacher, pursues an active program with the High School students. These patients, though mainly concentrated on the Poliomyelitis and Paediatric Wards, may be in any part of the Hospital. As a result of Mr. Harrington's representations, with the help of Mrs. Bernard and others, it has been possible to arrange for volunteers to write for those patients who are completely paralysed. This has considerably speeded up their progress in their school grades. Mrs. Ellen Robinson joined the staff this Fall to teach Grades I-VIII. There are often over 20 pupils, and total aggregate attendance in a month reaches 350 days. Through the generosity of the Junior Hospital League in contributing half the salary of a Co-ordinator of Recreational Activities, the Hospital was able to appoint Mrs. W. Nicholls to this position. With the co-operation of nursing staff, various organizations, and a large number of volunteers a far more ambitious program has been developed for the children. The importance of this as part of total child care cannot be over-emphasized. Visiting hours on all wards, except the toddlers, are now the same as for adults. For the toddlers parents are given an opportunity to remain on the ward after 3:00 p.m. and give their children supper and settle them for the night.

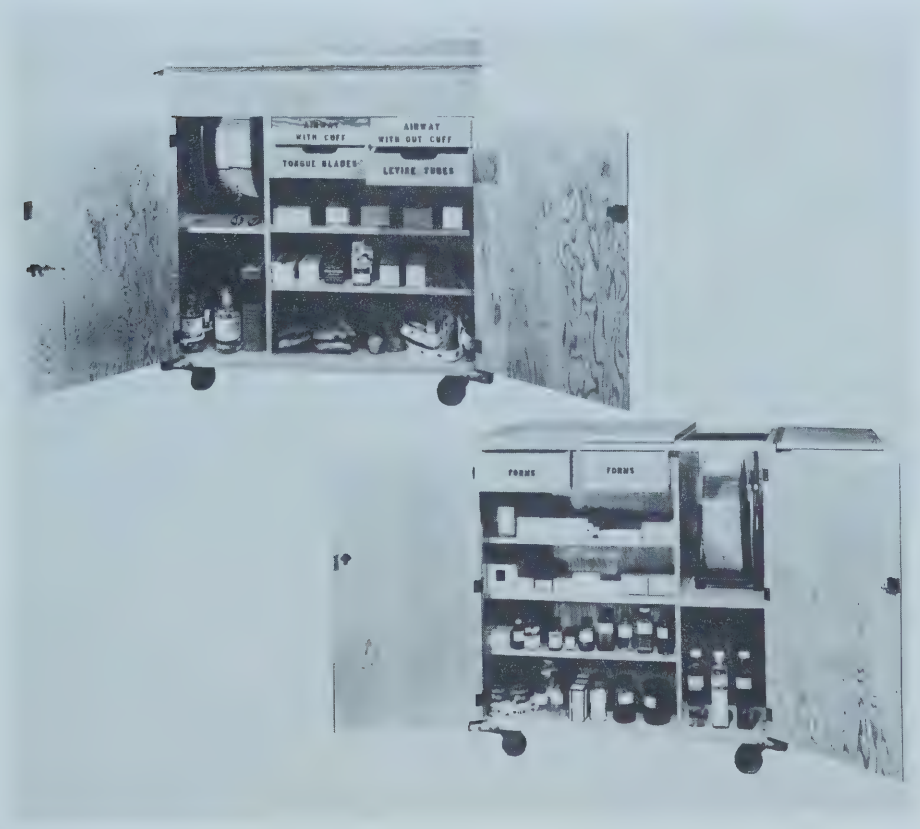
Dr. Brock Armstrong was elected President of the Canadian Paediatric Society for the coming year, a well deserved tribute to his many abilities. Dr. Brenda Devlin was appointed to the staff of the Hospital in May. Dr. Neil Duncan spent the first 3 months of the year working with Dr. R. Fraser and his group in the field of cardio-vascular disease on a full-time basis. The industriousness of the resident staff—Doctors Watkins, Birkbeck, Gauk and Rivas has been much appreciated, and contributed greatly to patient care. Dr. J. Birkbeck obtained his Dominion Councils. Dr. E. J. Turner, as full-time Teaching Fellow in Paediatrics, has helped considerably with the teaching, and is engaged on a research project. He passed the Certification Examinations in Paediatrics in November. The staff as a whole have contributed to nurses' lectures at the student and graduate level. The Course in Premature Nursing Care has been repeated twice in collaboration with the Department of Obstetrics.

The Department was fortunate in being awarded a Journal of Pediatrics Educational Foundation Home Lectureship. This enabled Dr. J. P. Hubbard, Professor and Head of the Department of Public Health and Preventive Medicine, University of Pennsylvania, to spend a week here. Much benefit was derived from his visit in the teaching and practice of the preventive aspects of Paediatrics. Through the University we also welcomed Dr. Stanley James of Columbia University, and Dr. Sydney Segal of the Department of Paediatrics, University of British Columbia. Their advice and stimulating lectures will do much to further treatment and research in relation to the new-born.

It is a privilege to be able to pay tribute to the loyalty and work of the nursing staff, ancillary workers, and volunteers, which has contributed so much to the standard of care and happiness of the children. Finally, sir, may I express on behalf of my Department our sincere appreciation of your unfailing cooperation in the past years, without which it would have been impossible to expand our facilities, and improve our standards of service so rapidly. We wish you a continued active and happy life in the years to come.

Respectfully submitted,

J. K. Martin, m.r.c.p.,
Director



"Poison Treatment Cabinet" constructed for the Provincial Poison Control Service.

OPHTHALMOLOGY AND OTOLARYNGOLOGY

Dr. A. C. McGugan,

Superintendent

Sir:

I beg to submit to you this report on the activities of the Department of Ophthalmology and Otolaryngology for the year ending December 31, 1959.

The members of our Department have in the past year contributed more than ever before to the teaching of residents, internes, undergraduate medical students and nurses.

During the year four scientific papers were prepared and presented by members of the Department.

The number of patients admitted to our Hospital for treatment of ophthalmological and otolaryngological conditions was greater than in any previous year. We need a few more beds.

In 1959 more than one hundred new patients were referred by physicians to the Glaucoma Clinic. These were thoroughly investigated, reports prepared and submitted to the referring physicians. In addition there were over 190 follow-up visits. To maintain adequate standard of service in this important division of our Department more technical assistance is urgently needed.

The divisions of Perimetry and Orthoptics have been in full operation, rendering a much needed service not only to our own Department but also to other Departments of our Hospital and to physicians in Edmonton.

On behalf of all the members of our Department I should like to solicit your assistance in securing for us additional beds and technical help. I should also like to express our appreciation for the co-operation we continue to receive from you and from your nursing and administrative staffs.

Respectfully submitted,

M. R. MARSHALL, M.D.,
Director,
Department of Ophthalmology
and Otolaryngology

DEPARTMENT OF REHABILITATION

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit the annual report for the Department of Rehabilitation for the year ending December 31st, 1959.

This year has been occupied trying to improve patient treatment rather than increase the patient load. However, this has been especially difficult in Occupational Therapy where it has seldom been possible to keep a full complement of staff. Because occupational therapists are so scarce, we have welcomed Mrs. Reigate, a trained crafts-worker to the staff. She has proved invaluable in providing craft projects for long term polio and paediatric patients, thus relieving a therapist for more specific treatment.

We were very sorry that Dr. Adamson, in June, commenced working half days only, but are very grateful to him for continuing to help, until we can obtain a suitable complement of trained physiatrists.

Special Training

In attempting to improve our knowledge and the care of patients, a number of individuals went away on training courses.

In March, Dr. Carpendale spent one week working with Dr. Bors and Dr. Comarr, at Long Beach Veterans Paraplegic Centre in Los Angeles, studying their methods of treating spinal cord injuries.

The next week was spent with Dr. Vernon Nickel at the Rancho Los Amigos Quadriplegic Centre, studying some of the new techniques in Functional Bracing of the Upper Extremity and the Artificial Muscle.

As a result of this experience, a brief was submitted to the provincial government to send a team of three, Dr. Gordon Wilson, from the Department of Orthopaedics, Mr. J. Littlefair, Chief Physiotherapist, and Mr. W. Stauffer, Orthotist from Edmonton Artificial Limb Company, to a course on Functional Bracing of the Upper Extremity, at the University of California, Los Angeles in September. Dr. Gordon Wilson was sponsored by Alberta Chapter of the Polio Foundation, and Mr. Littlefair was provided for by a government training grant.

On returning, Dr. Gordon Wilson established an Upper Limb Clinic, which has already proved itself an essential new service.

Miss Swan and Miss Pearce spent three months doing post graduate study, on a training grant, on the treatment of poliomyelitis, at the Georgia Warm Springs Foundation, from March to June.

Research

Dr. Carpendale has been continuing the previous project on "The Effect of long wave ultraviolet and visible light on the rate of healing of superficial wounds", from 1958, and in addition, has been carrying out some electromyographic studies on patients with Muscular Dystrophy with Dr. George Monckton.

Research Grant

The Rehabilitation Department has been greatly honoured by a grant from the Alberta Chapter of the Polio Foundation—to be devoted to research into "Unmet Needs in Rehabilitation". This consists of a grant of $10,000 for the first year, and a further $20,000 to be spread over the next four to five years. A number of projects have already been outlined and will commence as soon as suitable personnel are available in 1960.

Our most sincere thanks go to the Alberta Chapter of the Poliomyelitis Foundation for this magnificent bequest.

Statistical Report

Physiotherapy and Hydrotherapy Section

	1958	1959
Total number of treatments given	62,976	53,725
Total number of patients treated	5,420	4,788
Total number polio treatments given	4,725	6,713
Total monthly average for polio patients treated	26	28½

Remedial Exercise Section

Total number of treatments given	27,832	26,992
Total number of patients treated	3,126	3,232

Occupational Therapy Section

Total number of treatments given	17,736	20,194
Total number of patients treated	1,918	2,342
Total number of treatments	113,269	107,624
Total number of patients treated	10,699	10,704

Comment

These figures are very similar to last year's, with the exception of a slight increase in the number of patients treated in the remedial exercise section, and a decrease in the number of patients treated in both physiotherapy and occupational therapy. This probably reflects shortage of staff in both these areas, more than decreased patient load. Poliomyelitis treatments are up about 40% on 1958, reflecting the mild epidemic that occurred in the fall.

In summary, this year has been spent trying to—

(a) Consolidate gains made in the previous year.

(b) Improve the knowledge and experience of the staff with post graduate training.

I would like to thank Administration and the other hospital departments for their cooperation, and especially the members of our staff who have continued to do very creditable work under sometimes trying circumstances.

All of which is respectfully submitted.

M. T. F. Carpendale, M.D.,

Director of Rehabilitation

RADIOLOGY

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit the annual report of the Department of Radiology for the fiscal year ending December 31, 1959.

Number of patients examined	29,595
Number of radiographic examinations	36,060
Number of large films used	98,025
Number of miniature films used	4,511
Number of fluoroscopic examinations	3,642
Number of patients for deep therapy	240
Number of deep therapy treatments	1,167
Number of patients for superficial therapy	626
Number of superficial therapy treatments	1,030
Number of consultations concerning radiation therapy	508
Number of patients for clinical photography	892
Number of slides of all types	3,949
Number of art illustrations	153

The rate of increase in the number of patients examined and in the number of radiographic examinations in the Department of Radiology remains approximately the same as previous years.

Dr. John T. Mason left the Department December the 31st, 1959. He was successful in passing his specialist's certification examinations in Diagnostic Radiology, Royal College of Physicians and Surgeons of Canada, in November, 1959.

Dr. H. F. W. Pribram joined the staff of the Department of Radiology, September 1st, 1959. Dr. Pribram has special training in neuroradiology. Since his arrival the number of complicated neuroradiological examinations done has increased considerably.

Some alterations were made in the x-ray apparatus for fluoroscopic image amplification and intensification. The 5-inch image amplifier has been replaced by an 8-inch amplifier. This allows a much larger field of visualization during fluoroscopy. The procedure will now be applicable to adults. The cineradiographic attachment for this apparatus has been installed and preliminary work has been done by Dr. C. E. Holmes and the members of Picker X-ray Corporation.

The new X-ray Department in the Clinical Service Wing is almost completed. A considerable amount of new x-ray apparatus has been installed. This included a Siemens Planograph. This apparatus allows x-rays to be taken at any defined layer in the body. New Neuroradiological x-ray apparatus has been installed. Special explosion proof mobile units will be available for the new operating rooms.

Twenty-one cases received radioactive phosphorus therapy in 1959. Eye tumors were investigated by radioactive phosphorus seven times. Radioactive gold was used in eight cases. Five cases of carcinoma of the thyroid were treated using radioactive iodine. A new project has been started in which the radioactive iodine uptake is determined in lymph nodes in the neck in cases of carcinoma of the thyroid. This is a much more accurate method of determining iodine uptake than the previously used scan method.

The Department of Photography under the direction of Mr. J. Twyman has had a very busy year. The clinical slide library now contains approximately 20,000 slides. Three hundred slides are loaned each month for teaching. Numerous excellent illustrations and three dimensional drawings have been made by the medical illustrator, Mrs. Barbara Rhind. Since September, 1959 the Photographic Department has taken over the projection of films. Eighty-six films have been projected since that time.

May I take this opportunity to thank you and your staff for your excellent cooperation during the past year.

Respectfully submitted,

H. E. Duggan, M.D., F.A.C.R.,
Director,
Department of Radiology

MEDICAL STAFF -- UNIVERSIT

Fifth Row—Drs. A. Cairns, L. E. Beauchamp, A. M. Edwards, W. Forster, H. M. Barker, J. R. Huckell, K. A. Y
L. C. Grisdale, K. A. C. Clarke, W. D. Frew, E. G. Kidd, C. D. Elton, H. T. G. Williams, R. G. McCalla, D

Fourth Row—Drs. G. L. Willox, J. C. Callaghan, G. D. Brown, B. D. Margolus, G. L. Wilson, H. B. Armstrong, F. B. Ro
F G. Ramsay, E. F. Donald, T. S. Wilson, S. S. Parlee, J. Dvorkin, A. B. McCarten, J. W. R. McIntyre,

Third Row—Drs. B. Snell, H. Meltzer, C. R. Castaldi, R. S. Fraser, R. E. Rossall, G. D. Carson, J. Calder, C. B.
N. F. Duncan, B. Michalyshyn, J. R. Hilliard, H. Pascoe, W. C. Taylor, T. J. Speakman, D. F. Cameron,

Second Row—Drs. M. R. Marshall, J. K. Martin, R. D. Stuart, J. R. Vant, E. A. Gain, H. E. Duggan, P. H.
R. K. Thomson, D. R. Wilson, E. Hitchin, O. Rostrup, R. G. Huckell.

First Row—Drs. S. S. Spaner, E. B. Quehl, B. J. Sproule, E. S. Allin, T. R. Nelson, H. F. W. Pribram, L. E. McLeod,

OF ALBERTA HOSPITAL -- 1959

. Monckton, G. K. Morton, J. R. Hemstock, A. H. Maclennan, W. A. Strutz, R. W. Robertson, R. J. Johnston, ie, C. M. Couves, W. D. Kyle, G. O. Bain, R. C. Harrison.

L. Anderson, J. H. Stirrat, C. S. Dafoe, G. T. Moonie, T. C. Wilson, T. A. S. Boyd, L. B. Brown, J. Bugis, ott, S. E. Greenhill, J. O. Metcalfe, G. W. Cameron.

. S. S. Armstrong, J. Guild, M. M. Cantor, K. A. Swallow, Y. Yoneda, M. M. Hutton, R. R. Francis, R. A. Macbeth, le.

W. S. Hamilton, W. C. MacKenzie, A. C. McGugan, H. H. Hepburn, D. B. Leitch, J. J. Ower, R. E. Bell,

lmes, G. J. Conradi, J. D. M. Alton, M. T. F. Carpendale, R. S. Henderson.

PATHOLOGY

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to report upon the activities of the Department of Pathology for the year 1959.

In the service field, the examination of surgical specimens continues to climb, and during the year, 6,155 tissues were examined and reported upon. Malignant disease (cancer) was found in about 8% of the cases examined.

Rapid diagnosis by the frozen section technique, continues to find favor with the surgical staff, and members of the Pathology staff, are in the operating room each day for this purpose.

The autopsy service is increasingly active, and 479 autopsy examinations were carried out during 1959, an increase of 11% over the previous year.

Examinations of smears of body fluids for tumor cells, are also being requested more frequently, and presently, a technician from the Department is in Chicago, taking a six month course in Cytology, which will allow her to act as a "screener"—thus saving the professional members of the staff much time, in the examination of negative smears.

The Department of Pathology during the year took part in the Graduate teaching program leading to Certification, or Fellowship in the Royal College of Physicians and Surgeons of Canada, not only in Pathology, but also in other specialties such as Medicine, Surgery, etc.

Dr. H. E. Bell will complete training in the specialty of Pathology in July, 1960, and will write Certification examinations in Pathology in the fall. Dr. Bell has decided to enter the field of Clinical Pathology and will be associated with Dr. R. E. Bell in the University of Alberta Hospital following completion of his training.

Dr. Robert Swallow, has spent the past year with Dr. R. E. Bell in Clinical Pathology, and returns to the Department of Pathology, for the final year of training in Pathology in July, 1960.

Dr. Moira Scott started training in Pathology in July, 1959, and will continue training in this Department.

Dr. T. Shnitka, is away on leave of absence from the Department, spending a year in research in Histochemistry, at Johns Hopkins University, and will spend a further six months on Electron Microscopy, following which he will return to the Department as a full time member, with the rank of Assistant Professor.

Dr. James Stirrat, in addition to directing the autopsy service at the University Hospital also serves as Editor of the Alberta Medical Bulletin.

Dr. G. O. Bain, Associate Professor of Pathology, is continuing research studies on Bone Marrow, as well as taking an active part in the service and teaching activities of the Department. Dr. Bain is also Assistant Editor of the Alberta Medical Bulletin.

J. W. MACGREGOR, M.D.,

Professor of Pathology

DEPARTMENT CLINICAL LABORATORY SERVICES

Dr. A. C. McGugan,

Superintendent

Sir:

It is a pleasure to present a review of the work done in the Department of Clinical Laboratory Services for the year 1959. A statistical review of the work done in the various sections of the laboratory is attached. Where possible, both numbers of tests and unit values have been given. Also, a breakdown of out-patient analyses has been included for the current year. The work volume continues to increase with 18.5% more tests of 27% more units of work done in this year as compared to the previous year. This has come from increases in most sections, but particularly in chemistry and hematology.

We were fortunate in obtaining the services of Dr. D. J. Campbell as hospital biochemist. He joined the department at the end of February and brings with him a wide experience in analytical chemistry. Since his arrival he has reorganized a great deal of the chemistry routine. Many of the routine analytical procedures were revised and improved including those for chloride, C.S.F. protein, carbon monoxide and serum proteins. Methods for serum iron, iron-binding capacity, copper, ceruloplasm, leucine amino peptidase, lipase and ammonia were set up and a new method for serum calcium using a fluorescent indicator was developed. Alkaline phosphatase was modified for automatic analysis. A semi-automatic pipetting procedure for use in serum protein analysis was set up with substantial savings in time and glassware with an increase in precision. Other methods including the chromatographic determination of urinary amino acids, starch block electrophoresis for abnormal hemoglobin, and serum magnesium are under study. Special analytical equipment and space which will be available in the new services wing will permit development of other methods which are required. A comprehensive quality control program is under development and will result in various analyses being maintained at the highest possible level of precision. It is expected that this will be fully developed in the coming year.

In the hematology section the thromboplastin generation test was established as a regular investigative procedure in special bleeding problems. A method for determination of alkaline phosphatase in leukocytes was established and the procedure for erythrocyte fragility was revised. Special hematological investigations were carried out in consultation with members of the medical staff in problem cases.

In the steroid laboratory, the routines for 17 ketosteroids and 17 hydroxycorticosteroids were completely revised and new methods adopted for the estimation of these groups of hormones. Other work in the steroid laboratory under the direction of Dr. Lionel McLeod is covered in the report of the Special Services Committee in the Department of Medicine.

The special blood transfusion and research unit under Dr. Buchanan working with the Red Cross Blood Transfusion Service has provided blood for open heart surgery. In all 2,008 donors provided fresh blood for 72 operations and an additional 78 bottles were provided for patients with malignancies being treated by the perfusion techniques. Research work has been concerned with the preparation of special grouping sera of rare blood types. Samples of one very rare type were sent to many transfusion centres in Britain, Ireland and elsewhere in Canada. The third example of a new blood group antigen was discovered. An investigation has been started on the assessment of value of some new enzyme preparations and special buffer solutions in blood grouping. One of the test systems studied has been adopted as routine in Red Cross Blood Bank work.

Early in the year a project was commenced to set up a method to measure the level of erythropoietin in the blood. This hormone regulates the level of red cells in the blood and it is hoped that a satisfactory method of assay can be worked out to be used in the study of anemia.

The radioisotope laboratory continues to be a very active diagnostic and treatment unit. Procedures used in this laboratory have been a great deal of assistance in helping to solve difficult diagnostic problems, particularly in the fields of endocrinology and hematology. Many of the procedures in use are quite complex and there are several that need further development and new ones that should be adopted. The increased use of

radioactive materials requires careful control and supervision. Further development of the laboratory will require the services of a physicist full-time. In addition to the supervision of the routine and the development of new methods in the laboratory, the physicist is required to consult with other departments on problems where radioisotope measurements would be useful. There is an active research program in the laboratory. Dr. H. E. Duggan, with the assistance of a fellow provided by the Alberta Division of the Canadian Cancer Society, is conducting an important study related to radiation dosages received from internally-administered radioisotopes. Assistance in radioisotope measurements has also been given to projects in other departments.

In graduate training in clinical pathology Dr. Harold Bell completed one year in the laboratory. He will return to the staff here as Assistant Director in the coming year. Three other members of the house staff from other departments spent varying periods in the laboratory gaining experience in the use and interpretation of laboratory methods. One graduate student is working towards a Masters degree in clinical chemistry under the direction of Dr. D. J. Campbell. During the year we have provided experience in our laboratory for four technicians from other hospitals who wished to gain further experience in particular techniques. Clinical pathology rounds are held each week to discuss the laboratory aspects of interesting cases. In conjunction with the Department of Medicine, a short course in hematology was given to physicians in the province. Members of the department have also actively participated in teaching in their various fields of interest at the University.

The department is engaged in increasing research activities, both insofar as problems in the department itself are concerned and also in assisting other departments in their research problems. Dr. Campbell gave assistance to several departments in setting up or advising regarding methods of analysis referable to their research projects. In the laboratory itself the following projects are under study:

1. *Determination of phenylalanine levels by paper chromatography*—Dr. D. J. Campbell.
2. *The assessment of the value of enzyme tests in the diagnosis of pancreatic disease*—Drs. D. J. Campbell, R. Swallow and R. E. Bell.
3. *Method of assay for erythopoietin*—Dr. R. E. Bell.
4. *Method for determination of uric acid by uricase method*—Dr. D. J. Campbell.
5. *Comparison of serum iron, iron-binding capacity and peripheral blood smear examination in es timation of iron-deficiency anemia*—Drs. R. Weir, D. J. Campbell and R. E. Bell.
6. *Comparison of peripheral basophil counts and leukocyte alkaline phosphatase in differentiation of leukemia and leukemoid reactions*—Dr. R. E. Bell, Mrs. D. Comfort.
7. *Comparison of starch block with paper electrophoresis for identifying abnormal hemoglobins*—Drs. D. J. Campbell, R. E. Bell.
8. *Protein-splitting enzymes in diagnosis of pancreatic disease*—Dr. D. J. Campbell.
9. *Investigation of rare blood groups*—Dr. D. I. Buchanan.
10. *Investigation of use of enzymes in blood-grouping procedures*—Dr. D. I. Buchanan.

I should like to acknowledge the excellent service that has been provided by the Department of Medical Bacteriology of the Provincial Laboratory. Dr. John Penikett of that department has taken an active interest in bacteriological problems in the hospital and has participated in clinical pathology rounds. In addition, he is conducting a ward round once a week to see and discuss interesting bacteriological problems. Some facilities for the Department of Medical Bacteriology will be provided in the clinical services addition to further develop the liaison between the attending staff and the bacteriology laboratory.

In the coming year we should move into the clinical services addition. Excellent laboratory facilities are provided and will relieve the present congestion in the laboratory and will provide space for further development of laboratory diagnostic services. Better facilities for carrying out laboratory examinations on outpatients have been provided and it is hoped that satisfactory laboratory studies of some patients may be carried out without the necessity of their being admitted to hospital.

The laboratory has been called upon more and more frequently for assistance in developing special procedures and providing laboratory work for various research projects. The development work in particular is time-consuming and requires experienced staff with a good analytical background. Some consideration will need to be given in the future in providing staff in the laboratory to work on problems of this type. There is also a need to develop further graduate training in clinical chemistry and it is hoped that we will be able to attract graduate students to take higher University degrees in this field of chemistry. There is a similar need for more trained clinical pathologists and extension of the graduate training program in clinical pathology is

necessary. As hospital laboratory services develop further in the province, the need for clinical pathologists will increase and as it takes four years of training after rotation internship to complete training in this specialty, plans for staff must be anticipated some years in advance.

I should again like to thank the medical superintendent and the business administrator for the assistance and cooperation which they have given in meeting various problems related to the operation of this department. I should also like to acknowledge the excellent cooperation we have had from members of the medical staff.

Respectfully submitted,

R. Edward Bell, M.D.,
Director,
Department of Clinical Laboratory Services

DEPARTMENT OF CLINICAL LABORATORY SERVICES

	1958		1959			
	Tests	Units	Tests*		Units*	
Clinical Chemistry	50,760	175,654	59,254	(3,553)	255,787	(26,670)
Urinalysis	39,172	61,375	42,417	(5,175)	68,152	(8,658)
Hematology	127,528	180,151	166,535	(16,910)	230,758	(24,684)
E.C.G.'s	5,247	20,988	5,790	(501)	23,160	(2,004)
E.E.G.'s	1,716	20,592	1,875	(789)	22,500	(9,468)
B.M.R.'s	778	3,112	529	(84)	2,116	(336)
Miscellaneous	5,155	6,367	5,885	(106)	7,989	(177)
O.P.D. Laboratory	7,373	12,629	---	---	---	---
TOTALS	237,729	480,868	282,285	(27,118)	610,462	(71,997)
Radioisotope Laboratory Total Diagnostic Procedures	1,353		2,899	(1,405)		
Bacteriology and Serology Provincial Laboratory (units)		182,780			225,283	
Red Cross Patients Transfused	2,371		2,587			
Blood Used	6,149		7,154			

* Total tests or units including out-patients. Out-patients given in brackets.

Dr. A. C. McGugan,

Superintendent

Sir:

The Special Services and Research Committee was set up by the Hospital Board to foster the development of special diagnostic and treatment services in this hospital and to encourage clinical research in the hospital. The members of the Committee are the Dean of Medicine, who is Chairman, the Directors of the Departments of Medicine, Surgery, Obstetrics and Gynecology, and Clinical Laboratory Services, Medical Superintendent and the Business Administrator. During the year 1959 Dr. J. W. Scott, who had acted as Chairman of the Committee since its inception, retired as Dean of Medicine and as Committee Chairman. His wisdom and experience assisted greatly in the rapid development of work in special services and research in the hospital.

The projects that have been supported by the Committee by provision of funds, equipment or space are listed below. The staff members under whom the projects are being carried out are also listed. More complete details of these may be found in the various departmental reports. Most of the support for the projects was provided through the Special Services grant. Where support was given through grants from other agencies, this has been indicated.

Department of Medicine

Cardiopulmonary Unit—Dr. R. S. Fraser. Dr. R. E. Rossall (cardio). Dr. B. Sproule (pulmonary). Supported by Special Services grant. Research projects supported by Alberta Heart Association, Ciba Foundation, National Research Council, Kinsmen Club of Edmonton and Medical Research grant, University of Alberta.

Endocrine and Metabolism Unit—Dr. D. R. Wilson. Dr. L. E. McLeod. Supported by Special Services grant and National Research Council.

Muscular Dystrophy Unit—Dr. G. Monckton. Supported by Muscular Dystrophy Association of Canada.

Department of Surgery

Cardiovascular Surgery Unit—Dr. J. C. Callaghan. Dr. C. M. Couves. Supported by Special Services grant.

Peripheral Vascular Unit—Dr. R. A. Macbeth. Supported by Special Services grant.

Gastric Physiology Laboratory—Dr. R. C. Harrison. Supported by Special Services grant and National Research Council.

Artificial Kidney Dialysis—Dr. J. O. Metcalfe. Supported by Special Services grant.

Treatment of Malignant Lesions in Pelvis and Limbs by Isolation and Perfusion Techniques—Dr. C. M. Couves. Supported by National Cancer Institute.

Adjuvant Chemotherapy Program—Dr. C. M. Couves. A controlled study carried out under the American Cancer Society.

Irreversible Shock Study—Dr. C. M. Couves. Supported by Alberta Heart Foundation.

Infant Heart Project—Dr. J. C. Callaghan. Supported by National Health and Welfare grant.

Development of Artificial Heart Valves—Dr. J. C. Callaghan. Supported by Alberta Heart Foundation.

Department of Ophthalmology

Glaucoma Clinic—Dr. T. A. S. Boyd. Supported by Special Services grant.

Glaucoma Research—Dr. T. A. S. Boyd (in association with the Endocrine and Metabolism Unit). Supported by Special Services grant.

Department of Pediatrics

Research in Enzymes of Blood and Urine of Newborn Infants—Dr. W. C. Taylor. Dr. A. G. Stewart. Supported by National Research Council, Medical Research grant of the University of Alberta and the Special Services grant.

Research in Jaundice of Newborn—Dr. W. C. Taylor. Dr. A. G. Stewart. Supported by a National Health and Welfare grant.

A Study of Fibrinolytic Activity in Plasma and Tissues of Newborn—Dr. A. G. Stewart. Supported by Special Services grant.

Department of Radiology

Total body irradiation from internally-administered radioactive isotopes—Dr. H. E. Duggan. Supported by Alberta Division of the Canadian Cancer Society.

Treatment of Port Wine Stains with Phosphorus 32—Dr. H. E. Duggan. Supported by Special Services grant.

Department of Obstetrics and Gynecology

Cytological examination for detection of cancer in female genital tract—Dr. B. Ringrose (in conjunction with the Department of Pathology).

Department of Rehabilitation

Clinical, laboratory and electromyographic studies of patients with muscular dystrophy—Dr. M. F. Carpendale (in association with Dr. G. Monckton). Supported by Muscular Dystrophy Association of Canada.

Department of Clinical Laboratory Services

Special Blood Transfusion Unit—Dr. D. I. Buchanan. Supported by Special Services grant.

Erythropoietin Assay Project—Dr. R. E. Bell. Supported by Special Services grant.

The provision of funds for these projects has made available extensive diagnostic and treatment services of a special nature in this province.

The Committee will endeavor to keep the hospital abreast of worthwhile new developments in medical care including those requiring extraordinary skills, equipment and facilities.

Respectfully submitted,

W. C. MacKenzie, M.D.,
Chairman,
Special Services Committee

The American Journal of Medicine
CANADIAN MEDICAL ASSOCIATION JOURNAL
THE LANCET
CONTENTS
THE QUARTERLY JOURNAL OF MEDICINE
(NEW SERIES)
LIBRARY
PUBLICATIONS, ADDRESSES
AND RESEARCH PROJECTS

PUBLICATIONS, ADDRESSES AND RESEARCH PROJECTS

During 1959 members of the clinical departments of the University Hospital have published scientific papers, addressed medical and lay meetings and carried out research projects as detailed below:

DEPARTMENT OF MEDICINE

PAPERS PUBLISHED

1. FRASER, R. S. and WILDE, HENRY. *Paroxysmal Supraventricular Tachycardia with Congestive Heart Failure in Infancy.* Acta Cardiologica. 14:532. May, 1959.
2. MILLER, W. F. and SPROULE, B. J. *Studies on the Role if Intermittent Inspiratory Positive Pressure Oxygen Breathing (IPPB/1-O_2) in the Treatment of Pulmonary Edema.* Dis. of Chest. May, 1959.
3. MILLER, W. F., SPROULE, B. J. and CHUSING, I. E. *A Study of the Nature of Arterial Oxygen Lack using an Improved Rapid Method of Measuring Oxygen Tension.* Am. Rev. of T.B. and Pulm. Disease. March, 1959.
4. SPROULE, B. J. and ARCHER, R. K. *Change in Intravascular Temperature During Heavy Exercise.* Journal of Applied Physiology. November, 1959.
5. DRYENFURTH, I. and VENNING, E. H. *Studies on the Assay of Aldosterone; Chromotography and Chemical Determination.* Endocrinology, 64:648. May, 1959.
6. VENNING, E. H., DYRENFURTH, I., LOWENSTEIN, L. and BECK, J. C. *Metabolic Studies in Pregnancy and Puerperium.* J. Clin. End., 19:403. April, 1959.

PAPERS PRESENTED

1. *Radio Isotopes—Their Practical Use.* Canadian Medical Association (Alberta Division) and the University of Alberta Faculty of Medicine Refresher Course, Calgary, April, 1959. WILSON, D. R.
2. *Obesity.* University of British Columbia Refresher Course, Vancouver, February, 1959. WILSON, D. R.
3. *Symptomatology of Endocrine Disease.* University of British Columbia Refresher Course, Vancouver, February, 1959. WILSON, D. R.
4. *Physical Manifestations of Endocrine Disease.* University of British Columbia Refresher Course, Vancouver, February, 1959. WILSON, D. R.
5. *Management of Hypertension.* Panel discussion at the University of British Columbia Refresher Course, Vancouver, February, 1959. WILSON, D. R.
6. *Adrenocortical Function in Thyroid Disease.* Western Regional Group, National Research Council, Banff, January, 1959. McLEOD, L. E. and WILSON, D. R.
7. *Diabetes and Pregnancy.* Alberta Society of Specialists in Internal Medicine, Edmonton, September, 1959, and Prairie Regional Meeting, American College of Physicians, Winnipeg, November, 1959. BERTRAND, N. R. and WILSON, D. R.
8. *Post-myocardial Infraction Syndrome.* Prairie Regional Meeting, American College of Physicians, Winnipeg, November, 1959. BELL, D. M.
9. *Follow-Up Studies on Patients Operated on with the use of Extra-corporeal Circulation.* Royal College of Physicians and Surgeons, Vancouver, January, 1959. FRASER, R. S., ROSSALL, R. E. and DVORKIN, J.
10. *Open Heart Surgery.* Panel discussion Canadian Heart Association, Montreal, June, 1959. FRASER, R. S.
11. *The Treatment of Congestive Heart Failure.* The Canadian Medical - British Medical Associations Meeting, Edinburgh, Scotland, July, 1959. FRASER, R. S.
12. *Atherosclerosis.* Panel discussion Alberta Division, Canadian Medical Association, Edmonton, October, 1959. FRASER, R. E.
13. *Heart Disease.* Panel discussion Misericordia Hospital Medical Staff Rounds, Edmonton. October, 1959. FRASER, R. S.
14. *Indications for Operation in Congenital and Acquired Heart Disease.* Post-Graduate Course in Surgery, University of Alberta, November, 1959. FRASER, R. S.
15. *Cardiac Surgery.* Immaculata Hospital Medical Staff Meeting, Westlock, November, 1959. FRASER, R. S.
16. *QT and T Wave after Induced Premature Ventricular Beats.* Edmonton Society of Specialists in Internal Medicine, Edmonton, October, 1959. McDONNELL, C. E. and FRASER, R. S.
17. *Intercoronary Anastomoses in Infancy and Childhood.* Canadian Heart Association, Montreal, June, 1959. WOODS, J. D.
18. *Metabolic Response to Injury.* Red Deer and District Medical Society, March, 1959. GILBERT, J. A. L.
19. *Stresses and Strains in the Life of the Business Executive,* Alberta Division of Mental Health, Calgary, March, 1959. GILBERT, J. A. L.
20. *Differential Diagnosis of Jaundice.* Canadian College of General Practice, Toronto, April, 1959. GILBERT, J. A. L.
21. *Diseases of the Biliary Tract.* Panel discussion, Canadian College of General Practice, Toronto, April, 1959. GILBERT, J. A. L.
22. *Differential Diagnosis of Jaundice.* Medical Staff, Royal Alexandra Hospital, Edmonton, May, 1959. GILBERT, J. A. L.
23. *Report on Annual Meeting of the American College of Physicians.* Internists Society of Alberta, Calgary, May, 1959. GILBERT, J. A. L.
24. *Current Trends in Medical Education.* Calgary and District Medical Society, December, 1959. GILBERT, J. A. L.
25. *Principles of Pulmonary Physiology.* Alberta Society of Internists, Calgary, May, 1959. McLEOD, L. E.
26. *Common Problems in the Diagnosis of Thyroid Disease.* District Medical Society, Lloydminster, April, 1959. McLEOD, L. E.
27. *The Changing Face of Medicine.* University of Saskatchewan Refresher Course, Saskatoon, April, 1959. SCOTT, J. W.
28. *The Differential Diagnosis of Jaundice.* University of Saskatchewan Refresher Course, Saskatoon, April, 1959. SCOTT, J. W.
29. *The Response of Anemic Subjects to Heavy Exercise on a Treadmill.* Collip Club, University of Alberta, September, 1959. SPROULE, B. J.

30. *Pulmonary Function Testing.* Misericordia Hospital Medical Staff Rounds, December, 1959. SPROULE, B. J.

31. *Hypoplastic Anemia.* University of Alberta Refresher Course in Hematology, Edmonton, October, 1959. LITTLE, A. S.

32. *The Diagnosis of Bleeding Problems.* University of Alberta Refresher Course in Hematology, Edmonton, October, 1959. LITTLE, A. S.

33. *Pulmonary Hypertension—Clinical and Pathological Features.* Prairie Regional Meeting of American College of Physicians, Winnipeg, November, 1959. ROSSALL, R. E.

34. *Clinical Conference.* Medical Staff Rounds, Holy Cross Hospital, Calgary, April, 1959. ROSSALL, R. E.

35. *Sodium Retention in Periodic Paralysis.* College of Physicians and Surgeons, Vancouver, January, 1959. MONCKTON, G.

36. *Mechanism of Consciousness.* Canadian Electroencephalographic Association, Saskatoon, July, 1959. MONCKTON, G.

37. *The Treatment of Myotonia Congenita with Potassium Binding Resin.* Alberta Neurological Association, Edmonton, October, 1959. MONCKTON, G.

38. *Endocrine Therapy in Cancer.* University of Alberta Surgical Refresher Course, November, 1959. EDWARDS, A. M.

39. *Steroid Drugs in Treatment—Uses and Abuses.* Saskatchewan College of General Practice Refresher Course, Regina, 1959. EDWARDS, A. M.

40. *The Diagnosis and Treatment of Cirrhosis of the Liver.* Saskatchewan College of General Practice Refresher Course, Regina, 1959. EDWARDS, A. M.

41. *Treatment of Iron Deficiency Anemia.* University of Alberta Refresher Course in Hematology, September, 1959. HILLIARD, J. R.

42. *Infectious Mononucleosis.* University of Alberta Refresher Course in Hematology, September, 1959. HILLIARD, J. R.

43. *Differential Diagnosis of Jaundice,* University of Alberta Refresher Course in Surgery panel discussion, November, 1959. HILLIARD, J. R.

44. *Vitamin B12 Absorption Test.* University of Alberta Refresher Course, October, 1959, Edmonton. HOLMES, I.

45. *Haematology in Retrospect.* University of Alberta Refresher Course in Hematology, October, 1959. SCOTT, J. W.

46. *Diagnosis of Polycythemia Vera and its Treatment with Radioactive Phosphorus.* University of Alberta Refresher Course in Hematology, October, 1959. ELLIOTT, J. F.

47. *The Management of Chronic Leukemia in General Practice.* University of Alberta Refresher Course in Hematology, October, 1959. WHITING, R. H.

48. *The Management of Some Medical Complications of Pregnancy.* University of Alberta Refresher Course in Obstetrics and Pediatrics, February, 1959. LITTLE, A. S.

49. *Indication of Operation in Congenital and Acquired Heart Disease.* Panel discussion at the University of Alberta Surgical Refresher Course, November, 1959. DVORKIN, J.

50. *Recent Advances in the Diagnosis and Treatment of Jaundice.* Panel discussion at the University of Alberta Surgical Refresher Course, November, 1959. HILLIARD, J. R.

51. *Recent Advances in the Treatment of Thyroid Disease.* Panel discussion at the University of Alberta Surgical Refresher Course, November, 1959. McLEOD, L. E.

52. *Recent Advances in Fluid and Electrolyte Therapy.* University of Alberta Surgical Refresher Course, November, 1959. McLEOD, L. E.

53. *Differential Diagnosis of Lower Extremity Pain.* Panel discussion at the University of Alberta Surgical Refresher Course, January, 1959. EDWARDS, A. M.

54. *Differential Diagnosis of Cutaneous Malignancies.* University of Alberta Surgical Refresher Course, January, 1959. RENTIERS, P. L.

55. *Some Phases of Diabetic Management.* Vegreville and District Medical Association, February, 1959. BROWN, G. D.

56. *Medical Disease of Joints.* Red Deer and District Medical Association, February, 1959. KIDD, E. G.

57. *Diabetic Neuropathy.* American College of Physicians, Banff, January, 1959.

ADDRESSES TO LAY SOCIETIES

1. *The World Population 1980.* Kinsmen Club, Edmonton, November, 1959. McLEOD, L. E.

2. *Laboratory and Cardiac Investigation.* Canadian Society of Laboratory Technologists, Calgary, June, 1959. FRASER, R. S.

3. *Heart Disorders and Rehabilitation.* Alberta Society of Occupational Therapy Refresher Course, Edmonton, November, 1959. FRASER, R. S.

4. *Coronary Heart Disease and Hypertension.* Edmonton and District Ladies' Pharmaceutical Auxiliary, November, 1959. FRASER, R. S.

5. *Heart Disease.* Cosmopolitan Club of Edmonton, December, 1959. FRASER, R. S.

6. *Industrial Medicine.* Department of Extension, University of Alberta, Personnel Administration Course, Edmonton. GREENHILL, S. E.

7. *Industrial Medicine,* Department of Extension, University of Alberta, Personnel Administration Course, Calgary. GREENHILL, S. E.

8. *Family Care Programs.* Council of Community Services, Edmonton. GREENHILL, S. E.

9. *Looking Ahead.* Edmonton Jewish Community Council, Edmonton. GREENHILL, S. E. and GILBERT, J. A. L.

10. *Why People Work.* Associated Hospitals of Alberta Annual Convention, Edmonton, October, 1959. GREENHILL, S. E.

11. *Our Changing Society.* Alberta Association of Registered Nurses, Annual Convention, Banff, May, 1959. GREENHILL, S. E.

12. *Control of Diabetes by Insulin, Diet and Oral Drugs.* Programs as to Age and Occupation. Edmonton Branch Diabetic Association of Canada. EDWARDS, A. M.

13. *Social Problems in Epilepsy.* Western Canadian Epilepsy Association, April, 1959. MONCKTON, G.

14. *Muscular Dystrophy and Associated Disorders.* Muscular Dystrophy Chapter, Calgary, November, 1959. MONCKTON, G.

15. *Research in Heart Disease.* Canukeena Club of Edmonton, November, 1959. ROSSALL, R. E.

16. *Coronary Heart Disease and Hypertension.* Twentieth Century Ladies' Club of Edmonton, December, 1959. ROSSALL, R. E.

17. *Various Types of Insulin and Their Use.* Diabetic Model School, Vancouver and District Branch of the Canadian Diabetic Association, Vancouver, January, 1959. WILSON, D. R.

18. *Graduation address to x-ray, laboratory technicians and dietitians,* University of Alberta Hospital, Edmonton, May, 1959. WILSON, D. R.

19. *A Diabetic's Duty, Helping to Find the Unknown Diabetic.* Calgary and District Branch of the Canadian Diabetic Association, March, 1959. BROWN, G. D.

20. *Diabetes Today.* Victoria and District Branch of the Canadian Diabetic Association, October, 1959. BROWN, G. D.

21. *Diabetes Today.* Vancouver and District Branch of the Canadian Diabetic Association, October, 1959. BROWN, G. D.

RESEARCH PROJECTS

1. Studies in Diurnal Variation:
   (a) *Estrogen Excretion in Normals.*
   (b) *17-Ketosteriod Excretion in Adrenogenital Syndrome.*

2. *Influence of Hypophysectomy on the Renal Lesions of Diabetes Mellitus.*

3. Studies Concerning Hydrocortisone Metabolism.
   (a) *Protein-Binding of Hydrocortisone in Normal Subjects.*
   (b) *The Influence of Estrogen on Hydrocortisone Metabolism.*

4. *Measurement of Thyroid Function in Goitre in Myxedematous and Euthyroid Subjects.*
   FUNDS:
   National Research Council of Canada. Term Grant. $9,000 per year.
   John and Mary R. Markle Foundation. $6,000 a year.
   Special Services Committee, University of Alberta Hospital —$3,000.
   These funds cover the above noted four projects.
   McLeod, L. E.

5. *Research of Muscular Dystrophy and Allied Muscular Diseases.* Muscular Dystrophy Association of Canada—$14,830. Monckton, G.

6. *Investigation of Pre-Diabetes Amongst Women Producing Large Babies.* University of Alberta Medical Research Fund Grant No. 142—$1,500. Gilbert, J. A. L.

7. *Incidence of Coronary Thrombosis having Undergone Partial Gastrectomy for Peptic Ulcer.* D.V.A. gave assistance. Gilbert, J. A. L.

8. *Electroencephalographic Studies in Patients with Congenital Heart Disease.* Ciba Research Grant—$2,000 total. Fraser, R. E.

9. *Adrenal Cortical Function in Patients Submitted to Operations Using Cardiopulmonary By-Pass.* Alberta Heart Foundation—$1,000. Fraser, R. S.

10. *Clinical and Hemodynamic Changes in Patients with Congenital Heart Disease, Studies Six Months After Operation.* Kinsmen Research Bed — $200.00. Fraser, R. S. and Rossall, R. E.

11. *The Incidence of Various Congenital Cardiac Abnormalities in Patients Studied at the University of Alberta Hospital 1954-1960 with Comments on Clinical Features, Course and Treatment.* In part by Ciba Foundation—$100. Fraser, R. S. and Rossall, R. E.

12. *Circulation Model,* (Teaching Dye Curves and Dynamic Changes Caused by Valvular Abnormalities). University of Alberta, Faculty of Medicine, Department of Medicine—approximately $120. Fraser, R. S. and Rossall, R. E.

13. *Investigation of the Low Potential Electrocardiogram in Myxedema and Tissue Electrolyte Studies of Cardiac Muscle.* National Research Council—No. M.A. 701—total $3,100. Fraser, R. S., Dvorkin, J. and Bell, D. M.

14. Clinical Research from case material, Cardiac Unit (no support).
   (1) *Arrythmias Induced by Cardiac Catheterization.* Fraser, R. S. and Rossall, R. E.
   (2) *Left Persistent Superior Vena Cava.* A Study of 26 Patients. Fraser, R. S. and Rossall, R. E.
   (3) *Ruptured Sinus of Valsalva Aneurysm.* Clinical Features. Fraser, R. S. and Rossall, R. E.
   (4) *QT Interval and T Wave after Induced Ventricular Premature Beats.* Fraser, R. S. and Rossall, R. E.

15. *Coronary Anastomosis.* Funds in part by Life Insurance Underwriters' Association—$3,000. Woods, J. D.

16. *Study of Regional Differences in Vascular Changes in the Lungs of Patients with Mitral Stenosis and Congenital Heart Disease, together with Control Studies.* National Research Council—No. M.A. 735—$2,300. Rossall, R. E.

17. *Pathologic and Radiologic Study of Pulmonary Lymphatics.* National Research Council No. M.A. 735. Rossall, R. E.

DEPARTMENT OF SURGERY

PAPERS PUBLISHED

M. H. W. FRIEDMAN and W. C. MacKENZIE. *Simple ulcer of the colon: Report of four cases.* Can. J. Surg., 2:179-186, April 1959.

W. PISESKY, H. T. G. WILLIAMS and WALTER C. MacKENZIE. *The effect of triethylene thiophosphoramide (Thiotepa) and 17-ethyl-19-nortestosterone (Nilevar) on wound healing.* Can. J. Surg., 2:291-294, April 1959.

M. W. NIMECK, G. E. MYERS and W. C. MacKENZIE. *An evaluation of aseptic and antiseptic techniques as practised in a modern hospital—1: Operating theatres.* Can. J. Surg., 2:233-241, April 1959.

G. E. MYERS, M. W. NIMECK and W. C. MacKENZIE. *An evaluation of aseptic and antiseptic techniques as practised in a modern hospital — 2: Surgical wards and dressing stations.* Can. J. Surg., 2:381-386, July 1959.

R. C. HARRISON, F. GOUWS, and H. J. SHIMIZU. *Control of acid secretion by the gastric antrum.* Archives Surgery 78: 832, 1959.

R. C. HARRISON. *The control of acid in the duodenal ulcer patient.* C.M.A.J. 81:118, 1959.

C. EDWARD B. ABBOTT, WALTER C. MacKENZIE, and COLIN A. ROSS. *Surgical treatment of achalasia of the oesophagus.* Can. J. Surg., 2:345-352, July 1959.

MORRIS H. W. FRIEDMAN and WALTER C. MacKENZIE. *A foreign body in the appendix: A report of an unusual case.* Can. J. Surg., 3:98-100, October 1959.

WALTER C. MacKENZIE and ROBERT A. MACBETH. *The abdominal wall and peritoneum.* Chapter 18, Seventh Edition, the Christopher Textbook of Surgery as edited by Dr. Loyal Davis, 1959.

O. SILBERMANN, H. T. G. WILLIAMS, W. PISESKY, and R. C. HARRISON. *Experimental production of peptic ulcer—A new method.* Surgical Forum 9:455, 1959.

K. KOWALEWSKI. *Effect of cortisone on growth and on S^{35} uptake by mucopolysaccharides of transplanted osteosarcoma in rats.* Acta Endocrinologica 32:19-22, 1959.

R. C. HARRISON. *Major wound complications and their prevention.* C.M.A.J. 81:627, 1959.

K. KOWALEWSKI, C. M. COUVES, and A. LANG. *Protective action of 17-ethyl-19-nortestosterone against the inhibition of bone repair in the lathyrus-fed rat.* Acta Endocrinologica 30:268-273, 1959.

C. M. COUVES, G. F. BONDAR, W. A. STRUTZ and W. C. MacKENZIE. *The effects of muscle stimulation on hind limb flow and on experimentally produced venous thrombosis in the dog.* Surg. Forum, Vol. 10, 1959.

G. O. BAIN, P. B. R. ALLEN, O. SILBERMANN, and K. KOWALEWSKI. *Induction in hamsters of biliary carcinoma by intracholecystic methylcholanthrene pellets.* Cancer Research 19:93-96, 1959.

K. KOWALEWSKI and J. GORT. *An anabolic androgen as a stimulant of bone healing in rats treated with cortisone.* Acta Endocrinologica 30:273-276, 1959.

K. KOWALEWSKI and W. A. STRUTZ. *Uptake of radiosulphate by the gastric tissue and gastric secretion in cortisone treated Shay rats.* Acta Endocrinologica 31:107-112, 1959.

K. KOWALEWSKI. *Effect of certain androgenic steroids and cortisone on gastric ulcerogenesis in fasting rats.* Proceedings of the Society for Experimental Biology and Medicine 101: 147-150, 1959.

K. KOWALEWSKI. *Uptake of radiosulphate by mucopolysaccharides of aorta in cholesterol fed cockerels.* Proceedings of the Society for Experimental Biology and Medicine 101: 536-538, 1959.

K. KOWALEWSKI. *Serum and liver lipids in rats treated with neomycin.* Proceedings of the Society for Experimental Biology and Medicine 102:448-449, 1959.

JOHN C. CALLAGHAN, J. DVORKIN and D. BUCHANAN. *Re-operation utilizing extracorporeal circulation for disruption of the repair of an interventricular septal defect.* A.M.A. Archives of Surgery, Vol. 78, May 1959.

ELLIOT, E. C. and JOHN C. CALLAGHAN. *Acid base changes in dogs with and without extracorporeal circulation.* Can. J. Surg., Vol. 2, No. 2, January 1959.

S. KLING and N. DUNCAN. *Surgical emergencies in the newborn.* Alberta Medical Bulletin, Vol. 24, No. 2, p. 63, May 1959.

T. S. WILSON. *Acute and chronic breast abscess.* Can. J. Surg., 2:389-393, July 1959.

B. MICHALYSHYN. *Differential diagnosis of obscure blood loss from the gastrointestinal tract.* Alberta Medical Bulletin, Vol. 24, p. 69, May 1959.

A. B. McCARTEN and C. C. KRAUSE. *Replacement of a segment of common bile duct by an Ivalon prosthesis in dogs.* Can. J. Surg., 2:393-396, July 1959.

O. ROSTRUP and J. GORT. *Teflon fabric for ligament reconstruction. An experimental study.* Can. J. Surg., 3:75-78, October 1959.

H. P. ENGLE and J. O. METCALFE. *Extracorporeal hemodialysis in the treatment of salicylate intoxication in dogs.* Arch. Int. Pharmacodyn, 1959, CXX, No. 1.

PAPERS PRESENTED

DR. W. C. MacKENZIE:

"Tumours of the Neck"—presented at the meeting of the General Practitioners' Association of Alberta in Banff, January 28, 1959.

"The Role of Surgery in Thyroid Disease"—Sommer Memorial Lecture, Portland, Oregon, April, 1959.

"Some Observations on Pancreatic Disease" — Sommer Memorial Lecture, Portland, Oregon, April, 1959 and the William Mitchell Banks Memorial Lecture, Liverpool, England, June 26, 1959.

"Peritonitis: Reappraisal" — Sommer Memorial Lecture, Portland, Oregon, April, 1959.

Address to the Edmonton Academy of Medicine as Dean Elect, May 6, 1959.

"Intestinal Obstruction"—presented at the Refresher Course, University of Saskatchewan and City Hospitals, Saskatoon, Saskatchewan, May 7, 1959.

"Treatment of Duodenal Ulcer"—presented at the Refresher Course, University of Saskatchewan and City Hospitals, Saskatoon, Saskatchewan, May 7, 1959.

"Islet Cell Tumours and Peptic Ulcers"—presented to the Royal College of Surgeons of Edinburgh, Edinburgh, Scotland, July 10, 1959, and to the Royal Alexandra Hospital Medical Staff Meeting, Edmonton, Alberta, September 9, 1959.

"Reappraisal of the Indications for Surgical Treatment in Diverticulitis of the Sigmoid Colon"—presented at the Joint Meeting of the British Medical Association and the Canadian Medical Association in Edinburgh, Scotland, July 24, 1959.

"Islet Cell Tumours of the Pancreas"—presented to the staff (medical) at St. Bartholomew's Hospital, London, England, and to the medical staff at St. Thomas's Hospital, London, England, July, 1959.

"An Interesting Teaching Hospital—The Charles Camsell Hospital, Edmonton, Alberta" — presented to the medical students at the University of Glasgow, Glasgow, Scotland, July 13, 1959.

"Research in Cancer"—Guest speaker at the Annual Meeting of the Calgary and District Council, Canadian Cancer Society, November, 1959.

DR. R. C. HARRISON:

"The Recognition of the Significant Breast Lesion"—presented at the Postgraduate Course in Surgery, University of Alberta, January 19, 1959.

"The Effect of Gastroenterostomy on Heidenhain Pouch Secretion" (O. Retzer and R. C. Harrison)—presented by Dr. Retzer at the National Research Council Western Division meeting, Banff, January, 1959.

"Breast Disease" with Discussion Regarding Simple or Radical Mastectomy—presented at the B.C. Division of the Canadian Medical Association, Harrison Hot Springs, B.C., March 20, 1959.

"Medical and Surgical Treatment of Duodenal Ulcer"—presented at the B.C. Division of the Canadian Medical Association, Harrison Hot Springs, B.C., March 20, 1959.

"Major Complications of the Abdominal Wound"—presented at the B.C. Division of the Canadian Medical Association, Harrison Hot Springs, B.C., March 20, 1959.

"The Gastric Antrum"—presented at the Dr. Avery-Jones' Unit, Central Middlesex Hospital, London, England, April, 1959, and to the Surgical Staff of the London Hospital, London, England, April, 1959.

"Medical Education in the U.K."—presented to the University Hospital Medical Staff, Edmonton, September, 1959.

"Impressions of the National Health Service"—presented to the Edmonton Academy of Medicine, October, 1959.

"Ablative Surgical Procedures in Malignant Disease"—presented at the Postgraduate Course in Surgery, University of Alberta, November 9, 1959.

DR. R. A. MACBETH:

"Differential Diagnosis of Lower Extremity Pain"—Chairman of panel presented at the Postgraduate Course in Surgery, University of Alberta, January 19, 1959.

"Diagnosis and Treatment of Surgical Complications in Pregnancy"—presented with Professor R. Kinch at the Postgraduate Course in Obstetrics and Gynaecology, University of Alberta, February 25, 1959.

"The Metabolic Response to Trauma and its Therapeutic Implications"—presented to the Red Deer and District Medical Society with Dr. C. Couves and Dr. J. A. L. Gilbert, March 4, 1959.

"Audio-Visual Aids in Continuing Medical Education"—presented at the Second World Conference on Medical Education in Chicago, September 2, 1959.

"The Place of Tape Recordings in Medical Communication"—presented at the thirteenth General Assembly of the World Medical Association in Montreal, September 7, 1959.

"Acute and Chronic Venous Obstruction of the Lower Extremity and Acute and Chronic Arterial Obstruction of the Lower Extremity"—presented at the Podiatrists Short Course, Edmonton, October 12, 1959.

"The Biochemistry of Human Neoplasms"—presented to the Collip Club, University of Alberta, Edmonton, December 8, 1959.

DR. C. M. COUVES:

"The Treatment of Isolated Malignancies by Isolation and Perfusion"—presented at the Annual Meeting of the Royal College of Physicians and Surgeons in Vancouver, January, 1959.

"The Management of Acute Arterial Injuries"—presented at a Sectional Meeting of the American College of Surgeons in Vancouver, February 26, 1959.

"The Management of Peripheral Vascular Occlusive Disease"—member of a panel at a Sectional Meeting of the American College of Surgeons in Vancouver, February 27, 1959.

"The Effects of Muscle Stimulation on Hind Limb Flow and on Experimentally Produced Venous Thrombosis in the Dog" (co-author)—presented at the Annual Congress of the American College of Surgeons in Atlantic City, September, 1959.

"A Simple Technique for the Isolation and Perfusion of Hind Limb of Rats with Anti-neoplastic Agents" (co-author)—presented at the Annual Congress of the American College of Surgeons in Atlantic City, September, 1959.

"The Management of Penetrating Wounds of the Chest"—presented at a meeting of the Alberta Thoracic Society in Red Deer, Alberta, November 1, 1959.

Symptoms and Signs of the Intra-Thoracic Disease in the Child"—presented at a meeting of the Camrose Medical Society, Camrose, Alberta, November 25, 1959.

"Horizons of Chemotherapy"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 19, 1959.

DR. J. C. CALLAGHAN:

"The Results of the First Hundred Cases of Open Heart Surgery"—presented at the Annual Meeting of the Royal College of Physicians and Surgeons of Canada, Vancouver, B.C., January 21, 1959.

"Open Heart Surgery"—presented at a meeting of the Society of Radiographers of Edmonton at the Misericordia Hospital, February 2, 1959.

"Aortic and Peripheral Vascular Surgery"—presented at a meeting of the Camrose Medical Society, February 25, 1959. Forum on *"Cardiac Surgery"*—University of Alberta Extension, Operating Room Supervisors Meeting, February 26, 1959.

"Cardiac Surgery"—presented at a meeting of the Westlock Medical Society, November 19, 1959.

"Open Heart Surgery for Congenital and Acquired Defects of the Heart"—presented at the Alberta Thoracic Society Meeting, Red Deer, Alberta, November 1, 1959.

DR. M. H. W. FRIEDMAN:

"Simple Ulcer of the Colon" — presented at the Annual Meeting of the Royal College of Physicians and Surgeons of Canada, Vancouver, January, 1959.

DR. K. KOWALEWSKI:

"Effect of Local Gastric Hypo- and Hyperthermia on the Concentration of Plasma Pepsinogen in Gastric Veins of Dogs"—presented at the meeting of the Western Surgical Association in Colorado Springs, Colorado, November 19, 1959.

DR. S. KLING:

"Some Peculiarities of Surgery in Children"—presented at the meeting of the College of General Practice, Alberta Division, Banff, January, 1959; and at the meeting of the College of General Practice, Manitoba Division, Winnipeg, Manitoba, June, 1959.

"Pre-operative Assessment of the Surgical Patient"—presented at the meeting of the Canadian Medical Association, Alberta Division, October, 1959.

"Surgical Emergencies of the Newborn"—Panel at the Postgraduate Course in Obstetrics and Paediatrics, University of Alberta, Edmonton, February 24, 1959.

DR. T. S. WILSON:

"Breast Abscess"—presented at the Annual Meeting of the Royal College of Physicians and Surgeons of Canada, Vancouver, January, 1959.

"Clinical Versus Bacteriological Diagnosis of Surgical Infections"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 19, 1959.

DR. B. MICHALYSHYN:

"Differential Diagnosis of Obscure Blood Loss from the Gastrointestinal Tract" — presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 20, 1959.

DR. A. W. HARDY:

"Planter Warts"—presented at the meeting of the Canadian Medical Association, Alberta Division, October, 1959.
"Recent Advances in the Management of Varicose Veins"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 10, 1959.

DR. B. D. MARGOLUS:

"The Chemotherapy of Cancer"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 19, 1959.

DR. A. B. McCARTEN:

"Malignant Lesions of the Skin"—presented at the Sectional Meeting of the American College of Surgeons, Vancouver, B.C., February, 1959.

"The Spread of Carcinoma of the Head and Neck in Nerves"—presented at the Western Regional Meeting of the National Research Council of Canada, Banff, January, 1959.

"Carcinoma of the Head and Neck"—panel discussion at the Annual Congress of the American College of Surgeons, Atlantic City, New Jersey, October, 1959.

"The Differential Diagnosis in Benign Lesions Causing Dysphagia"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 19, 1959.

DR. G. L. WILLOX:

"Pancreatitis"—presented at the meeting of the Prince Edward Island Medical Society, Charlottetown, P.E.I., August, 1959.

"Varicose Veins and Stasis Ulcers"—presented at the meeting of the Prince Edward Island Medical Society, Charlottetown, P.E.I., August, 1959.

"Intestinal Obstruction"—presented at the meeting of the New Brunswick Medical Society, St. Andrews, N.B., August, 1959.

DR. H. T. G. WILLIAMS:

"The Development and Present Status of Cardiac Surgery"—presented to a Study Group of Operating Room Nurses, Calgary General Hospital, Calgary, March, 1959.

"Recent Advances in Fluid and Electrolyte Therapy"—presented with Dr. L. E. McLeod at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 10, 1959.

DR. R. J. JOHNSTON:

"Persistent Anorectal Complaints"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 20, 1959.

DR. W. A. MACLEAN:

"Familial Pheochromocytoma" — presented at the Annual Meeting of the Royal College of Physicians and Surgeons of Canada, Vancouver, January, 1959.

DR. G. K. MORTON:

"Spinal Injuries with Paralysis: A review of Cases"—presented with Dr. T. J. Speakman at the Medical Staff Meeting of the University Hospital, Edmonton, December, 1959.

DR. T. J. SPEAKMAN:

"Surgical Measures for the Relief of Pain"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 9, 1959.

"Basal Ganglion Surgery for Parkinsonism"—presented at the meeting of the Canadian Medical Association, Alberta Division, October 1, 1959.

"Brain Abscesses: A Review"—(with Dr. P. Allen) presented at the Neurological Sectional Meeting of the Canadian Medical Association (Alberta Division) October 1, 1959.

DR. O. ROSTRUP:

"Treatment of Common Fractures"—presented to the Central Alberta Medical Society, May 6, 1959.

DR. G. W. CAMERON:

"Report of Orthopaedic Travelling Fellowship to Great Britain"—presented at the Canadian Orthopaedic Association Meeting, July, 1959; and also at the Medical Staff Meeting of the University Hospital, October 5, 1959.

DR. G. L. WILSON:

"Treatment of Lesions of the Toes, Mortons Neuroma"—presented at the Sixth Annual Short Course for Podiatrists, Edmonton, October 12, 1959.

DR. D. C. JOHNSTON:

"Acute Injuries to the Shoulder"—presented at the Northwestern Conference on Athletic Injuries, University of Oregon, Eugene, Oregon, June 19, 1959.

"Acute Injuries to the Knee"—presented at the Northwestern Conference on Athletic Injuries, University of Oregon, Eugene, Oregon, June 20, 1959.

DR. J. D. M. ALTON:

"Differential Diagnosis of the Chronically Swollen Leg"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 19, 1959.

DR. J. O. METCALFE:

"Differential Diagnosis of Testicular Masses"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 20, 1959.

DR. W. A. STRUTZ:

"Recent Advances in the Treatment of Thrombophlebitis"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 10, 1959.

"The Effects of Muscle Stimulation on Hind Limb Blood Flow and on Experimentally Produced Venous Thrombosis in the Dog"—presented at the Western Regional Meeting of the National Research Council of Canada, Banff, January 27, 1959.

DR. S. T. NORVELL, JR.:

"Peritonitis: Reappraisal"—presented at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 20, 1959.

"Urinary Pepsinogen Determinations in Benign and Malignant Lesions of the Stomach"—presented at the Western Regional Meeting of the National Research Council of Canada, Banff, January 27, 1959.

"Differential Diagnosis of Lower Extremity Pain"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 19, 1959. DR. R. A. MACBETH (Chairman), DR. G. L. CAMERON, DR. J. C. CALLAGHAN.

"The Differential Diagnosis of Patients with Chronic Abdominal Pain"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, January 20, 1959. DR. J. M. LEES (Chairman), DR. R. R. FRANCIS, DR. A. E. THEMAN.

"Indication of Operation in Congenital and Acquired Heart Disease"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 9, 1959. Panelists: DR. J. C. CALLAGHAN, DR. C. M. COUVES.

"Recent Advances in the Diagnosis and Treatment of Jaundice"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 9, 1959. DR. R. A. MACBETH (Chairman), DR. L. P. MOUSSEAU, DR. W. MACLEAN.

"Recent Advances in the Treatment of Thyroid Disease"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 10, 1959. DR. H. L. RICHARD (Chairman), DR. G. L. WILLOX.

"Recent Advances in the Management of Intestinal Obstruction"—Panel at the Postgraduate Course in Surgery, University of Alberta, Edmonton, November 10, 1959. DR. R. J. JOHNSTON (Chairman), DR. A. B. McCARTEN, DR. S. KLING, DR. M. M. LASKIN.

RESEARCH PROJECTS

Studies on the biochemistry of human neoplasia. R. A. Macbeth and E. Triantas. Supported by the National Cancer Institute of Canada and the Alberta Division of the Canadian Cancer Society.

A control study of the Use of Alpha Tocopherol in intermittent claudication. R. A. Macbeth and H. T. G. Williams. Supported by a Special Services Grant, University of Alberta Hospital.

Adjuvant chemotherapy in malignancy. C. M. Couves and associates. Supported by the National Cancer Institute of Canada.

The effects of varying venous flows on experimental venous thrombosis.

The effects of anticoagulation on experimental venous thrombosis.

The natural course of experimentally produced venous thrombosis. C. M. Couves and associates. Supported by National Research Council of Canada Grant No. 825.

A study of cardiovascular and respiratory distress in the newborn. J. C. Callaghan and D. Cardozo. Supported by National Health and Welfare Grant, Child and Maternal Division.

A study into the cardiac effects of irreversible shock. C. M. Couves. Supported by the Alberta Heart Foundation.

The treatment of bacteremic shock by extracorporeal circulation and blood irradiation. C. M. Couves. Supported by the Alberta Heart Foundation.

A study of isolation and perfusion techniques for malignancy. C. M. Couves. Supported by the National Cancer Institute of Canada.

Experimental study in the use of Ostomer in fractures in dogs. O. Rostrup and M. Emery. Supported by University of Alberta Medical Research Grant No. 158.

Clinical review of ligamentous injuries about the knee at the University of Alberta Hospital from 1950-1958. O. Rostrup.

Experimental production of carcinoma of the cecum in rats by methylcholanthrene string with and without antibiotic production. W. A. Strutz, A. E. Theman, K. Wiancko, and K. Kowalewski. Supported by National Cancer Institute of Canada Grant No. 265.

Effects of actase on thrombi. W. A. Strutz, C. M. Couves, B. J. G. Greenhill, G. J. Francis, and A. E. Theman. Supported by National Cancer Institute of Canada Grant No. 265.

Studies on a membrane oxygenator. J. C. Callaghan and D. Cardozo. Supported by National Health and Welfare Grant, Child and Maternal Division.

A study of heart valve action. J. C. Callaghan and D. Cardozo. Supported by the Alberta Heart Foundation.

A study of the conduction mechanism in a human heart. J. C. Callaghan, D. Cardozo, and R. F. Shaner. Supported by National Health and Welfare Grant, Child and Maternal Division.

Venoarterial and arterial assisted circulation in animal experiments. J. C. Callaghan and associates. Supported by the Alberta Heart Foundation.

Development of small volume ventricle type pump. J. C. Callaghan and D. Cardozo. Supported by National Health and Welfare Grant, Child and Maternal Division.

A study of electronically driven pump under the control of the electrocardiogram for resuscitation of acute coronary occlusion. J. C. Callaghan and associates. Supported by National Health and Welfare Grant, Child and Maternal Division.

A study of pre-pulmonary bypass. J. C. Callaghan and associates. Supported by National Health and Welfare Grant, Child and Maternal Division.

Variation in serum amylase and amylase excretion associated with pancreatic cooling. O. Retzer, M. H. W. Friedman, and W. C. MacKenzie. Supported by University of Alberta Medical Research Grant No. 175.

Experimental production of portal hypertension and ascites. S. Kling, J. Young, and K. B. Wiancko. Supported by National Research Council of Canada Grant No. MT-713.

Gastric blood flow in histamine treated dogs. K. Kowalewski, B. Michalyshyn, and G. L. Willox. Supported by University of Alberta Medical Research Grant No. 179.

The effect of cytotoxic drugs on wound healing in rats. B. D. Margolus. Supported by National Cancer Institute of Canada Grant No. 253.

Experimental production of gastric cancer in dogs. W. A. Maclean. Supported by University of Alberta Medical Research Grant No. 181.

Further studies in the use of Teflon in joints and particularly with reference to reconstruction of the anterior cruciate ligament. O. Rostrup and M. Emery. Supported by National Research Council of Canada Grant No. 818.

Blood gases of visceral vessels in dogs treated with histamine. G. J. Francis, E. C. Elliott, and K. Kowalewski. Supported by Nilevar Trust.

Effect of calcium on gastric enzymatic function in dogs. J. Siegenberg and K. Kowalewski. Supported by University of Alberta Medical Research Grant No. 161.

Strength of callus in healing fractured humerus of rats under various hormonal treatment. K. Kowalewski and K. B. Wiancko. Supported by Nilevar Trust.

Effect of estrogen on the lipid metabolism in cockerels. K. Kowalewski. Supported by Nilevar Trust.

Changes in blood, muscle and bone electrolytes in rats with gastric fistula. W. Pawluk, B. J. G. Greenhill, and K. Kowalewski. Supported by Nilevar Trust.

The long-term results of modified plombe thoracoplasty in the treatment of pulmonary tuberculosis. H. Meltzer and R. B. Lyshak.

A survey of carcinoma of the bladder in Alberta from 1953 to 1958 inclusive. R. R. Francis.

The production of experimental pancreatitis.

The evaluation of changes in serum enzyme levels in acute abdominal conditions. H. T. G. Williams. Supported by University of Alberta Medical Research Grant No. 177.

Radial head prosthesis in the management of radial head fracture. O. Rostrup. Supported by University of Alberta Medical Research Grant No. 158.

A study of the direct effect of respiratory alkalosis in cerebral circulation of dogs. C. S. Dafoe, C. A. Ross, and C. Heath.

Gastric and duodenal pH studies in normal patients with duodenal and gastric ulcer, and postoperative patients. R. C. Harrison and R. Morrison. Supported by a Special Services Grant, University of Alberta Hospital.

Control of gastric secretion by isotopes. R. C. Harrison and R. Morrison. Supported by University of Alberta Research Fund.

The influence of vagal innervation on antral function. R. C. Harrison and O. Retzer. Supported by National Research Council of Canada Grant.

Excision of acid secreting mucosa and replacement by skin-grafting. R. C. Harrison, B. Greenhill, and G. Francis. Supported by National Research Council of Canada Grant.

DEPARTMENT OF ANAESTHESIA

PAPERS PRESENTED

1. *The Practical Value of the Electroencephalogram During Anaesthesia:* E. A. GAIN, M.D. Presented to Western Division, Canadian Anaesthetists Society, Saskatoon—April 1959.

2. *Cyclopropane—Present Status*—E. A. GAIN, M.D. Presented to Annual Meeting, Canadian Anaesthetists Society, Montebello, Que.—June 1959.
Published, Alberta Medical Bulletin—November 1959.

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

PAPERS PUBLISHED

1. DR. J. S. BARR. *Theca Cell Tumour of the Ovary.* The Canadian Medical Association Journal, 81, 182, 1959.

2. DR. E. G. T. TRUEMAN. *Megaloblastic Anemia of Pregnancy with Severe Thrombocytopenic Purpura*—Case Report and Review of the Literature. The Canadian Medical Association Journal, 81, 243-247, August 15, 1959.

PAPERS PRESENTED

DR. J. R. VANT:

1. *The Role of a Perinatal Mortality Committee.*

2. *The Conduct of a Normal Labor.*
Presented as guest speaker at Obstetric-Paediatric Refresher Course, University of Saskatchewan, Saskatoon, Saskatchewan, March 5, 1959.

3. *The Role of the Provincial Perinatal Committee.*
Participant in panel discussion, Royal College of Physicians and Surgeons of Canada, Vancouver, B.C., January 24, 1959.

4. *Infertility.* An address to the staff, Misericordia Hospital, May 27, 1959.

5. *The Contribution Made by Maternal Mortality Study Committees.* Combined meeting, C.M.A.-B.M.A., Edinburgh, July 23, 1959.

6. *Maternal Mortality in Alberta, 1935-58.* Canadian Medical Association, Alberta Division, Edmonton, October 1, 1959.
7. *The Facts of Life and Human Reproduction.* Two lectures given to the female freshmen of all faculties, University of Alberta, October, 1959.
8. *"Contraception" from the Pharmacist's Point of View.* A talk to the graduating class in Pharmacy, University of Alberta, April, 1959.

DR. L. B. BROWN:

9. *The General Practitioner's Role in the Early Diagnosis of Pelvic Cancer.* An address to the University of Alberta Refresher Course, February, 1959.

DR. J. BUGIS:

10. *The Management of the Medical Complications of Pregnancy.* Presented with Dr. A. Little, Department of Medicine, University of Alberta Refresher Course, February 24, 1959.
11. *A Review of 61 Deliveries of Rh Iso-immunized Mothers.* Annual meeting of the Pacific Northwest Obstetrical and Gynaecological Society, Banff, June, 1959.

DR. T. R. CLARKE:

12. *Obstetric Haemorrhage.* A member of the Panel, Refresher Course.

DR. A. DAY:

13. *Post Partum Care.* Presented at the Refresher Course, February 23, 1959.

DR. W. D. FREW:

14. *Educating the Mother for Parturition.* Presented at the University of Alberta Refresher Course, February 24, 1959.
15. *Advanced Practical Obstetric Lectures.* August to September, 1959.

DR. R. H. HORNER:

16. *Maternal Mortality in Alberta*—1955, 1956, 1957. Annual Refresher Course, February 24, 1959.

DR. MARGARET M. HUTTON:

17. *Perinatal Statistics,* University of Alberta Hospital, 1955-1958. Royal College of Physicians and Surgeons, January, 1959.
18. *Gynaecological Problems in the Adolescent Female.* Annual Refresher Course, February 25, 1959.

DR. S. S. PARLEE.

19. *Psychosomatic Gynaecology.* Presented to College of General Practice, Alberta Division, Banff, February, 1959.

DR. Y. YONEDA:

20. *Present Day Management of Abortion.* Royal College of Physicians and Surgeons, Vancouver, January, 1959.
21. *Bilateral Polycystic Ovaries.* Annual meeting of the Pacific Northwest Obstetrical and Gynaecological Society, Banff, June, 1959.
22. *Stein-Leventhal Syndrome.* Canadian Medical Association, Alberta Division, Edmonton, September, 1959.

RESEARCH PROJECTS

1. The Alberta Perinatal Mortality Study. *Obstetrics and Paediatrics in association.*
2. Dr. T. R. Nelson. *Statistical Survey of Caesarian Sections in the University of Alberta Hospital.*
3. Dr. T. R. Nelson. *Pelvic Phlebography—particularly in its relation to pelvic pain and menstrual abnormalities.*
4. Dr. T. R. Nelson. *Construction of apparatus to estimate blood pressure in the newborn.*
5. Dr. W. F. Ferguson. *Foetal Giantism.* Awaiting publication.
6. Dr. W. F. Ferguson. *A Study of the Perinatal Mortality in Multiple Pregnancies in the Province of Alberta.*
7. Dr. W. F. Ferguson. *Obstetrical Anaesthesia in a Large General Hospital.*
8. Dr. W. F. Ferguson and Dr. J. Bugis. *A Comparative Study of Out-Patients and Private Obstetrical Admissions at the University of Alberta Hospital.*
9. Dr. J. Bugis. *A Five Year Survey of Hemolytic Disease of Newborns.* (In association with Dr. W. C. Taylor, Department of Paediatrics.)
10. Dr. Margaret M. Hutton. *A Five Year Review of Perinatal Deaths in the University of Alberta Hospital.*
11. Dr. Margaret M. Hutton. *A Ten Year Review of Primary Ovarian Carcinoma in the University of Alberta Hospital.*
12. Dr. Margaret M. Hutton. *Clinical investigation in the use of "Metaspas" in dysmenorrhea*—University of Alberta Infirmary.
13. Dr. L. B. Brown. *Establishment of a profile of normal cornification levels of the vagina in menopausal and post menopausal women, with reference to the value of this method in assessing method of palliation in metastatic breast cancer.*
14. Dr. W. D. Frew and Dr. J. R. Vant. *A clinical investigation of the effect on the physiology of labor of prenatal education.*
15. Dr. W. D. Frew. *The preparation of teaching colored films of both normal and abnormal labor.*
16. Dr. J. R. Vant. *Perinatal Mortality in Very Young and Elderly Primigravidae.*

DEPARTMENT OF PSYCHIATRY

PAPERS PUBLISHED

FORSTER, W., and HENDERSON, A. L.: *Experience with anabolic steroid (Deladumone) therapy for decubitus ulcers; a preliminary report: Current therapeutic research;* Volume 1, No. 3, November, 1959.

PASCOE, H.: *The Criminal Mind . . . Does it Exist?* Obiter Dicta, Spring, 1959.

PASCOE, H.: *Why such apprehension over Shock Treatment?* C.M.A.J., Volume 81, 738-40, November 1, 1959.

YONGE, K. A.: *Comparative Experimental changes by psychoanalytic and religious procedures:* Proceedings of the fourth International Conference on Psychotherapy, 1959.

PAPERS PRESENTED

Tranquilizers and Anti-Depressants: Annual Meeting of the Alberta Medical Association, Edmonton, September 1, 1959. FORSTER, W.

Psychological aspects of Disaster in Industry: Seminar on Mental Health in Industry, Canadian Mental Health Association, Calgary, April, 1959. GUILD, J.

Structural factors and limitations in brief psychotherapy: Annual Meeting of the Canadian Psychiatric Association, Ottawa, June, 1959. GUILD, J.

The Problem of Alcoholism: Elgin County Medical School Association, St. Thomas, Ontario, February 28th, 1959. PASCOE, H.

Emotionally Disturbed Children: Annual Meeting of the Canadian Mental Health Association, Calgary, January 27, 1959. YONGE, K. A.

So the Doctor says it's your nerves: Rotary Club, Edmonton, February 5, 1959: YONGE, K. A.

Needs of the Ex-mental hospital patient: White Cross Centre, Edmonton, April 2, 1959. YONGE, K. A.

Sex Education: Leduc Home and School Association, April 8, 1959. YONGE, K. A.

Who are the Handicapped: Institute of Rehabilitation, Saskatoon, May 11, 1959. YONGE, K. A.

Hypochondria: University Club, Edmonton, September 23, 1959. PASCOE, H.

Is Racial Prejudice a Disease? Hillel Undergraduate Society, University of Alberta, Edmonton, October 4, 1959. PASCOE, H.

Disciplining the Child: Edmonton Talmud Torah Home and School Association, December 14, 1959. PASCOE, H.

The Changing Face of Psychiatry: Edmonton Psychiatric Society, June 13, 1959. YONGE, K. A.

What makes Therapy work: Psychiatric Nurses' Association, Ponoka, June 18, 1959. YONGE, K. A.

Making and Breaking: The Symbolic Language of Human Activity, University of Alberta Hospital: Refresher Course, Alberta Society of Occupational Therapy, November 21, 1959. YONGE, K. A.

DEPARTMENT OF PAEDIATRICS

PAPERS PUBLISHED

TAYLOR, W. C., *Infant Mortality from Haemolytic Disease of the New-born.* Alberta Med. Bulletin. Vol. 24, No. 2, May 1959.

TAYLOR, W. C., *Modern Trends in Paediatrics* (Book Review). Alberta Med. Bulletin. Vol. 24, No. 2, May 1959.

CALDER, J., *Legitimate Indications for Tonsillectomy.* Alberta Med. Bulletin. Vol. 21, No. 2, February 1959.

DUNCAN, N. F., *Surgical Emergencies in the New-born.* Alberta Med. Bulletin. Vol. 24, No. 2, May 1959.

WATKINS, G., *Hyperchloraemic Uraemia in a Premature Infant on a High Protein Diet.* Can. Med. Assoc. J. Vol. 81, No. 9, November 1, 1959.

WATKINS, G., *Leprosy: Report of Two Cases.* Can. Med. Assoc. J. Vol. 81, No. 11, December 1, 1959.

PAPERS PRESENTED

DR. J. K. MARTIN:

February 24, 1959—*"Round Table Discussion on Early Diagnosis and Treatment of Some Neonatal Diseases"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

February 24, 1959—*"Clinical Rounds—Reducing Mortality in Haemolytic Disease. Anaesthesia and Analgesia in Pregnancy and Labour. Brain Damage to the New-born Infant"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

July, 1959—*"Aetiological Factors in Cerebral Palsy"*—Presented at the International Congress of Paediatrics, Montreal.

October 8, 1959—*"Anaemia in Pregnancy"*—Presented at the Post-Graduate Course in Internal Medicine Haematology, Edmonton.

October 28, 1959—*"Some Handicapped Children"* — Presented to the Edmonton Rehabilitation Study Group, Edmonton.

November 5, 1959—*"Services for the Handicapped Child"*—Presented to the Medical Officers of Health of Alberta Health Units, Edmonton.

November 25, 1959—*"Symptoms and Signs of Intra-Thoracic Disease in the Child"*—Presented at the Camrose District Medical Society Meeting, Camrose.

DR. W. C. TAYLOR:

February 24, 1959 — *"Reducing Mortality in Haemolytic Disease"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

April 8, 1959—*"The Diagnosis and Treatment of Convulsions in Children"*—Presented at the Vegreville and District Medical Society Meeting, Lloydminster.

April 22, 1959—*"Appendicitis in Children"*—Presented to the Medical Staff, Misericordia Hospital, Edmonton.

April 26, 1959—*"Prophylaxis of Ophthalmia Neonatorum"*—Presented at the Annual Meeting of the Ophthalmological and Otolaryngological Society of Alberta, Edmonton.

August 20, 1959—*"Facts about Fluoridation"*—Public Service Broadcast, CHED, Edmonton.

November 10, 1959—*"Cardiac Dysrhythmia in Exchange Transfusion"*—Presented at a meeting of the Collip Club, Edmonton.

September 28 to October 1, 1959—*"Anterior Mediastinal Emphysema in Infants"*—Exhibit at the 54th Annual Convention of the Alberta Division of the Canadian Medical Association, Edmonton.

DR. H. B. ARMSTRONG:

February 23, 1959—*"The Home Care of the Infant, Including Infant Feeding"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

October, 1959—*"The Handicapped Child"*—Presented to the Paediatric Section of the Saskatchewan Division of the Canadian Medical Association, Saskatoon.

DR. P. J. KIMMITT:

October 1, 1959—*"Care of Premature Infants"*—Presented at the 54th Annual Convention of the Alberta Division of the Canadian Medical Association, Edmonton.

DR. T. A. GANDER:

October 1, 1959—*"Infection in the Premature and New-Born Nursery"*—Presented at the 54th Annual Convention of the Alberta Division of the Canadian Medical Association, Edmonton.

DR. L. C. GRISDALE:

February 23, 1959—*"Round Table Perinatal Studies"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

DR. J. CALDER:

February 24, 1959—*"Round Table Discussion on Early Diagnosis and Treatment of Some Neonatal Diseases"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

January 19, 1959—*"Legitimate Indications for Tonsillectomy"*—Presented at the Post-Graduate Course in Diagnosis of Common Surgical Conditions, Edmonton.

DR. L. E. BEAUCHAMP:

February 24, 1959—*"Round Table Discussion on Early Diagnosis and Treatment of Some Neonatal Diseases"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

DR. N. F. DUNCAN:

February 24, 1959—*"Surgical Emergencies of the Newborn"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

DR. K. SWALLOW:

February 25, 1959—*"Some Problems of the Adolescent Girl"*—Presented at the Post-Graduate Paediatric-Obstetric Refresher Course, Edmonton.

RESEARCH PROJECTS

DR. J. K. MARTIN:

1. *Study of Dermal Patterns and Teeth Enamel Defects in Spastic Diplegia.* (With Dr. M. Thompson and Dr. C. R. Castaldi).
2. *Study of the Incidence of Chronic Diseases in Children and the Services Available for Treatment.* (With Mr. K. A. Cseuz).
3. *Controlled Study in the Use of Digoxin in Prevention of the Respiratory Distress Syndrome.*

DR. W. C. TAYLOR:

1. *An Assessment of Edglugate Magnesium Solution as an Anticoagulant in Exchange Transfusion.* (With Dr. D. W. Wilkinson and Dr. C. W. Nash).
2. *Detection of Foetal Erythrocytes.* (With Mr. G. Kullman).
3. *A Study of Electrocardiographs and Electrolyte Changes during Exchange Transfusions in Human Infants.*
4. *Experimental Production of Cardiac Arrhythmia in Rabbits during Exchange Transfusion.*
5. *A 5-year Survey of Stillbirths and Neonatal Deaths from Haemolytic Disease of the New-born in Alberta.*
6. *Observations on Premature Infants in Respiratory Distress.*
7. *A Comparison of Retraction Scores and Respiratory Rates as a Means of Assessing Respiratory Distress in Newborn Infants.*
8. *An Examination of Liquor Amnii to Develop New Methods for the Detection of Intra-uterine Haemolytic Disease.* (With Dr. A. G. Stewart).

DR. A. G. STEWART:

1. *Fibrinolytic Activity in the Tissues of the New-born.* (With Dr. E. J. Turner).
2. *Bilirubin Glucuronyl Transferase Activity in the Liver.*
3. *Enzymes in the Blood of Infants.* (With Dr. J. Birkbeck).

DEPARTMENT OF REHABILITATION

PAPERS PRESENTED

1. *"The Role of the Dietitian in the Rehabilitation Team"*—M. T. F. CARPENDALE, to the Alberta Dietetic and Home Economic Association, April, 1959, (subsequently published in the Journal of the Canadian Hospital Association).
2. *"The Cost of Inadequate Rehabilitation and the Need for Research"*—M. T. F. CARPENDALE, to the combined national meetings of the Poliomyelitis Foundation of Canada and the Co-ordinating Council of Crippled Children and Adults, June, 1959.

DEPARTMENT OF RADIOLOGY

PAPERS PRESENTED

H. E. DUGGAN, M.D.

Results with Radioactive Isotopes—Canadian Society of Laboratory Technologists.

Treatment of Haemangiomas—Royal Alexandra Hospital Medical Staff.

Radiation Hazards—University of Alberta Hospital Medical Staff.

Total Body Radiation and Dose to the Ovaries from a Therapeutic Dose of Iodine 131—The Canadian Association of Radiologists.

Radiation Hazards—Canadian Medical Association, Alberta Division.

The Diagnosis of Polycythemia Vera and its Treatment with Radioactive Phosphorus—J. F. ELLIOTT and H. E. DUGGAN, Post Graduate Course in Internal Medicine.

Publications—Department of Radiology, 1959. Total Body Radiation and Dose to the Ovaries from a Therapeutic Dose of Iodine 131: H. E. DUGGAN, D. B. SCOTT, and DOROTHY L. WEIJER—The Journal of The Canadian Association of Radiologists, Vol.X, No. 4, 1959.

DEPARTMENT OF PATHOLOGY

PAPERS PUBLISHED

1. *Cutaneous Meningioma (Psammoma).* A.M.A. Archives of Dermatology, October, 1959, Vol. 80, pp. 410-412. T. K. SHNITKA and G. A. BAIN.
2. *Induction in Hamsters of Biliary Carcinoma by Intracholecystic Methylcholanthrene Pellets.* Cancer Research, Vol. 19, No. 1, pp. 93-96, January, 1959. G. O. BAIN, B. R. ALLEN, O. SILBERMANN and K. KOWALEWSKI.
3. *Congenital Adenomatoid Malformation of the Lung. Diseases of the Chest,* Vol. xxxvi, No. 4, October, 1959. GORDON O. BAIN.
4. *Stromal Hyperplasia of the Ovary.* Alberta Medical Bulletin, February 1959, pp. 31-36. NORRIS BERTRAND.
5. *Scalene Lymph Nodes—Anatomy and Pathology.* Alberta Medical Bulletin, May, 1959, pp. 97-105. PETER YOUNG.
6. *Breast Lesions in the Age Group 30-45 Years.* Alberta Medical Bulletin, August, 1959, pp. 161-166. O. RETZER.

DEPARTMENT OF CLINICAL LABORATORY SERVICES

PAPERS PUBLISHED

R. EDWARD BELL. *The Value of Routine Serologic Tests for Syphilis on Hospital Admission.* Amer. Jour. Clin. Path. 32:521: (Dec.) 1959.

D. I. BUCHANAN. *Some Common and Uncommon Iso-antibodies Found in Patients' Sera.* Can. Jour. Med. Tech. 21:107: (Dec.) 1959.

HAROLD E. BELL. *Megaloblastic Anemia—Three Cases.* Alta. Med. Bull. 24:189: (Nov.) 1959.

PAPERS PRESENTED

"Plasma-Cell Myeloma"—Hematology Refresher Course, October 1959. DR. R. E. BELL.

Demonstration of Hematological Methods—Hematology Refresher Course, October 1959. DRS. R. E. BELL, H. E. BELL, G. O. BAIN and MRS. D. COMFORT.

Some Common and Uncommon Iso-antibodies Found in Patients' Sera—C.S.L.T. Annual Meeting, June 1959—DR. D. I. BUCHANAN.

SCHOOL FOR LABORATORY TECHNOLOGISTS

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to report to you on the activities of the School for Laboratory Technologists of the University Hospital during the calendar year 1959. Seven students completed their two-year training course and were presented with gold pins and diplomas by the University Hospital Board at the Graduation Exercises held in the spring. All seven later qualified as Registered Technicians in the Certification Examinations of the Canadian Society of Laboratory Technologists. One of these graduates won the gold pin awarded the student in Edmonton with the highest marks in the practical examinations of the Canadian Society of Laboratory Technologists. Four of the students accepted positions on the laboratory staff upon graduation. One junior technician successfully completed her training towards specialist certification in hematology by the Canadian Society of Laboratory Technologists.

Ten students were selected from the many applicants to commence the training course during the summer and early fall. With eight entering their second year of training, this brought the total number of students to eighteen.

During the summer months May to September, four students in the University course in Medical Laboratory Science were assigned to this laboratory for their hospital training. At the conclusion of their second University year the same students will return for a second summer of practical work following which they may write the Certification Examinations of the Canadian Society of Laboratory Technologists or return to University for a third year to qualify for a Bachelor of Science degree.

Members of the laboratory staff again participated in instruction in the University courses as sessional demonstrators in clinical pathology.

Miss Jean Matheson, B.A., Instructor in Medical Technology, was appointed to the newly-formed Certification Board of the Canadian Society of Laboratory Technologists, set up to deal with the standards of training and certification of medical technologists.

I should like to acknowledge the generous assistance given by the Department of Medical Bacteriology and the Department of Pathology in technician training.

Lack of teaching facilities has limited the enrollment in our program. With the additional space available in the Clinical Services wing consideration will be given to enlarging the training program.

Respectfully submitted,

R. Edward Bell, m.d.,

Director,

Department of Clinical Laboratory Services

The entire Graduate Nursing Staff
of University Hospital, 1915

Approximately one-seventh of the graduate nursing
staff of 334 University of Alberta Hospital, 1960

Dr. A. C. McGugan,

Superintendent

Sir:

It is my pleasure to report herewith on the activities of the Department of Nursing for the year 1959. Again this has been a year of great activity and growth.

Representative members of the staff attended the annual meetings of the Alberta Association of Registered Nurses held during May in Banff and of the Associated Hospitals of Alberta held during October in Edmonton. Miss F. Sikora organized a panel discussion on Cardiac Surgery for the program of the annual meeting of the Alberta Association of Registered Nurses in which Misses J. Coleman, A. Heyn, E. Robson and E. Reid participated. Mr. R. Coombs also contributed to the program by participating in a panel discussion on Operating Room Technique. Earlier in the year Mr. Coombs had attended an Institute on Operating Room Nursing at the University of Alberta.

As members of the Executive of the Alberta Association of Registered Nurses, Miss Thompson and I attended three meetings of the Executive during the year as well as the annual meeting. Miss Thompson also attended Committee Meetings in Ottawa of the Committee on Nursing Education of the Canadian Nurses' Association and a three day Workshop on Curriculum, organized by this Committee.

During the Fall, the Provincial Health Department set up a Committee to Survey Nursing Care in the province and I was invited to act as one of the three nurse members of the Committee. Two meetings of the Committee were held and the main activity was the preparation of a questionnaire which was completed by all Nursing Staff and Students of Alberta Hospitals who were on duty over the twenty-four hour period commencing at 7:00 a.m. on December 10. We trust some useful, as well as interesting, data will result from this Survey which represented a considerable expenditure of time as far as our staff was concerned.

The staff and students shared the pleasure of the patients of the two Pavilions on the occasion of the Royal Visit on July 21.

We have enjoyed having a number of visitors during the year but we would like to make special mention of the visit of Miss Christine Livingstone. Although we did not know it at the time, this was the last occasion we would receive her as Director in Chief of theVictorian Order of Nurses, for she retired from this position at the end of 1959. Many of the graduates of this School have served in the Victorian Order of Nurses during Miss Livingstone's period as Director and she in turn spoke highly of the calibre of our graduates that she had known.

Nursing Officers

There have been seventeen appointments, an unusually high number of changes in the senior nursing staff, during this year. We are grateful that it has been possible to select well prepared nurses for the various vacancies.

Two of the appointments were to new positions, bringing the number of senior staff to forty-two:

A Clinical Instructor in Metabolism was appointed in June. This nurse, who is prepared in public health nursing, spends approximately seventy-five per cent of her time in patient teaching and twenty-five per cent of her time in student teaching.

A fourth Administrative Supervisor was appointed to the Nursing Service Office in August. This nurse is responsible for equipment and for the Nursing Aide trainees who are sent to the University Hospital for a ten week block of clinical experience. The number of trainees assigned to this hospital for clinical experience has increased from approximately eight to twenty, with the opening of the second School for Nursing Aides in Edmonton during 1958. Having a senior member responsible for equipment has proven beneficial to the Charge Nurses in the efficient administration of their Nursing units and also to the Maintenance co-ordinator and the Purchasing department, as a liaison.

Miss Olga Wolenski, Clinical Instructor-Supervisor in Rehabilitation, was granted leave of absence in order to enroll in the program in Teaching and Supervision at the School of Nursing, University of Alberta during the 1959-1960 academic year.

Nursing Service

A higher occupancy has again maintained throughout the hospital this year and this has been reflected in increased demands on nursing service. In particular, the increased numbers of poliomyelitis patients in the acute stage of the disease who have been admitted to the Respirator Unit have resulted in this area being unusually active and requiring additional staff as a result.

An increase in establishment at the beginning and again at the end of 1959 has assisted materially in our planning for adequate coverage in the various Nursing units and for the educational program of the students. The fluctuation in the number of graduate staff particularly during the summer months, continues and this invariably means that staffing plans must be altered to meet the situation.

Six of the nineteen members of Class January, 1959 and twenty-eight of the sixty-eight members of Class September, 1959, continued as members of the graduate staff on the completion of their programs.

Over the period August 31 to September 2, the following changes in patient population took place:

Nursing Station 32—from a male medical to a female medical unit and, shortly thereafter, to both a female and male medical unit.

Mewburn Pavilion 5—from a male isolation and surgical unit to a male medical unit.

Mewburn Pavilion 1—from a female medical to a male isolation and surgical unit.

The following educational opportunities have been afforded this year:

—from January to March—seven students in Teaching and Supervision from the University of Alberta did concurrent field work, in various departments.

—from April 13 - 26—a staff member from the Charles Camsell Hospital observed in the Paediatric Department.

—from April 20 to May 31 and from October 19 to November 27, six and eight students respectively completed the program offered under the University of Alberta in the Care of the Premature Infant.

—from April 27 to May 10 and from May 4 - 31, one and two students respectively were assigned for field work from the University of Saskatchewan.

—from April until June and from September until November, three and one British trained nurses were given classroom and clinical preparation in Obstetrics to be eligible to write the registered nurses' examinations in that subject. Each was barred from registration because of the deficiency of this subject.

—from June 1 - 28 and from November 4 - 6, staff members from the Archer Memorial Hospital, Lamont, observed in the Operating Rooms and in the Paediatric Department, respectively.

—during August and again during October we made arrangements for a graduate of this School to return to the Psychiatric Department for an additional four weeks of experience, on a student basis, which each required for registration in the State of California.

—from September to December, students in the Course in Advanced Practical Obstetrics observed in the Obstetrical and Out-patient departments.

—Commencing September 28, five selected members of the Certified Nursing Aide staff commenced an in-service program to prepare them to assume the duties of Operating Room Assistants.

—Members of the nursing staff assisted in the two in-service programs for members of the Orderly staff.

With the increase in number of Nursing Aide trainees assigned to this hospital occurring at a time when we were increasing the number of student nurses, it became necessary during August to seek accommodation for the trainees outside the Nurses' Residence. We were fortunate in being able to make satisfactory arrangements for the accommodation of twenty trainees in the Nurses' Residence at the Misericordia Hospital. As well as providing room and meals to this group, an allowance is made by the Hospital toward their transportation expenses.

There are two or three other activities we would like to refer to briefly. The Nursing staff responded well to the appeal for donors at the Red Cross Blood Donor Clinic held in the hospital in January. The appointment of a part-time Social worker by the Women's Auxiliary has greatly assisted in the coordination of the work of volunteers in the hospital, particularly in the Paediatric and Poliomyelitis Departments. These volunteers, in turn, greatly assist the Nursing staff in the complete care of their patients. The provision in the 1959 budget for a porter to transport patients between the Mewburn Pavilion and the Main Building has resulted in a saving of time of nursing staff and a more efficient way of planning this activity.

Nursing Education

Revisions in the Regulations Governing Schools of Nursing were discussed at committee meetings at the University of Alberta in March and April and were made available in printed form at an informal meeting of directors of Schools of Nursing held in Calgary in November. These revised regulations come into effect in July, 1960, and will be studied carefully by our Nursing Education staff so that we will be familiar with them before their effective date. Our opinion is that it will not be difficult for us to meet the specified requirements.

During the period October 13 - 22, Miss M. Schumacher, Advisor to Schools of Nursing, visited the School. Following the visit, Miss Schumacher compiled a twenty-eight paged report, copies of which have been circulated to members of the Hospital Board and to members of the Nursing Advisory Board. This report presents certain goals which we shall study during 1960.

Two Graduation Exercises were held this year in place of the customary Graduation in May. This resulted from the introduction of the Conjoint examinations in August, 1959. The University now requires a Senior student nurse to successfully pass these examinations to be eligible to be graduated from her School of Nursing as well as to be eligible to register with the professional association. The examinations are held approximately two weeks before the students complete their programs, and graduation exercises are scheduled approximately six weeks later. The students in the Spring class requested that separate Exercises be held for their class so that they would not have to wait until October for Graduation. Accordingly nineteen members of Class January, 1959, and four affiliating students were honored at the Exercises held in the Spring and sixty-eight members of Class September, 1959 were honored at the Exercises held in the Fall. We have great pleasure in reporting that all members of both classes were successful in the registered nurses' examinations.

We continue to admit two classes to the School each year and prefer to handle the yearly intake of students in two groups. The registrations were as follows:

Class Provincial Mental Hospital, 1961—3 (for a two year affiliation)

Class January, 1962 —40

Class, September, 1962—86, of whom 24 are registered in the degree pattern.

These students were selected from a large group of applicants. Our waiting-list for the September class commenced in April and a number of qualified applicants waited over for admission until the class to be registered in January, 1960.

There were twenty-one students terminated their programs this year for the following reasons:

Unhappy in Nursing	9
Marriage	7
Unsatisfactory record	4
Health	1

During 1959 the Students' Revolving Loan Fund was used six times. We continue to become aware of a number of worthy students requiring financial assistance and we are pleased to report that increased funds have become available for student nurses this year under the terms of the Students' Assistance Act. Negotiations have also been completed for the awarding of Alberta Blue Cross Bursaries in the School, commencing with the class which registered in September, 1959. A bursary will be awarded at the end of the preclinical period for each thirty students or portion thereof and selection will be partly on the basis of performance and promise and partly on the basis of financial need.

We are in continuous contact with persons requesting information about the School of Nursing and the School calendar is distributed extensively in response to such requests. Our major publicity effort occurs at the time of Varsity Guest Weekend when the University and University Hospital Schools combine to hold "Open House"

This year we estimated we had twelve hundred visitors to the School on this occasion. Just preceding this event, we provided staff and student speakers to two Career Day events in South Side High Schools and I participated in a radio recruitment program.

Among student activities we are pleased to report that for the fifth consecutive year we have had award winners in the Macmillan Case Study Competition in Canada. The details of the two honorable mention winners are as follows:

Kuczmak, Annie—*"Multiple Myeloma"*, The Canadian Nurse, July, 1959, pages 623-627. Miss Kuczmak was an intermediate student in the School when she prepared this study.

Sobie, Gloria—*"Pemphigus Vulgaris"*, the Canadian Nurse, July, 1959, pages 627-630. Miss Sobie was a senior student in the School when she prepared this study.

One further senior Case Study has been printed during this year:

Eaton, Amaryllis—*"Right Lobar Pneumonia"*, The Canadian Nurse, December, 1959, pages 1108-1111.

The Nurses' Choir has had a successful year and the other student extra-curricular activities have been carried on with the usual zeal and enthusiasm. The students re-entered the Interfaculty Play Competition, after an absence of a few years, and received a very favorable adjudication.

Nursing Advisory Board

The full Board held one meeting in September and the Executive held six meetings during the year.

The Board gratefully accepted and completed arrangements in relation to four new prizes in the School which have been donated by the Medical Staff. Two of these were awarded for the first time at the 1959 Graduation Exercises:

The Strathcona Prize in Medical Nursing

The Strathcona Prize in Psychiatric Nursing

The two additional prizes will be awarded for the first time at the 1960 Graduation Exercises and they perpetuate prizes which were previously made available by other donors:

The Strathcona Prize in Obstetrical Nursing

The Strathcona Prize in Surgical Nursing

Nurses' Residence

The Nurses' Residence is for the accommodation of student nurses. From time to time, temporary accommodation has been provided to new graduates on the staff whose homes were outside the city. Since the Hospital has acquired three houses in the immediate neighborhood for the use of graduate nurses and other female staff, this has been of great assistance in settling new staff.

This past summer we have welcomed back to the Hospital and to the residence members of Class January, 1949, Class September, 1949 and Class September, 1954. These Alumnae reunions have been most happy occasions for all concerned.

Improvements which have taken place in the Residence, worthy of note, are as follows:

—the upper mezzanine was furnished during June and Alberta Government colored photographs were provided in a number of the floor lounges.

—the large classroom, 1008, was tiered during the summer and this has aided materially in lecturing in this room.

—the underground corridor to the hospital was finished in asphalt tiling.

—a member of the engineering staff has been assigned to the Residence and this has greatly assisted in a systematic maintenance program.

Summary

Another active year can be reported in the Department of Nursing. On May 15 of this year the Department passed its fifth milestone under the present Directors. A picture of the growth and development of the hospital and of the Nursing Department over this period can be seen in the following figures:

	May 15, 1954	May 15, 1959
Number of beds	910	1117
Number of patients	686	913
Average Occupancy (for Month of May)	75.5%	85.83%
Nursing Officers	25	40
Charge Nurses	47	45
Assistant Charge Nurses	3	21
General Staff Nurses:		
Full-time	92	197
Part-time	17	22
Certified Nursing Aides	31	75
Ward Clerks:		
Full-time	14	23
Part-time	—	2
Ward Aides	74	112
Orderlies	43	81
Student Nurses	279	346
Nursing Aide trainees	11	19

We would like to acknowledge the assistance and cooperation which we have continued to receive during this year from the staffs of other departments, from the members of the Medical staff and from the Administration. We feel we are fortunate in working in an environment where the efforts of all are directed toward better patient care and better student education.

This report is respectfully submitted.

Jeanie S. Clark,
Director of Nursing

PHARMACY

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit the annual report of the Department of Pharmacy for the year 1959.

The cost of supplies for the year is proportional to that of past years. The inventory is high, in order to assure adequate supplies at all times. It is anticipated that some reduction in drug costs will occur in 1960, due to greater production and improved manufacturing procedures.

The revised list of drugs for the emergency night medication cupboard has been prepared, and will be in operation as soon as the service wing is functional.

The teaching of Pharmacology to nursing students and the presentation of a laboratory at the University as well as in the Hospital to Pharmacy students has been carried out as in the past.

Members of the Department have taken an active interest in the inter-faculty conferences that exist between the Universities of British Columbia, Alberta and Saskatchewan. One such conference took place March 7th and 8th, 1959, in our University.

The activity of the Joint Pharmacy Therapeutic Committee is being carried on. This committee has adopted the University of Alberta Hospital Formulary, and recommends it as a guide to all hospitals, physicians and surgeons in Alberta. Numerous requests for the formulary are being received from points outside this province.

Prepackaging of drugs has allowed this department to keep pace with the heavy demands of the hospital. No additional personnel have been hired. However, an additional pharmacist will have to be taken on staff so as to assume the responsibility of the Out-Patient Pharmacy when it is put into operation.

A summary of the work done, the costs of drugs in 1959, and the antibiotics and corticotrophic hormones purchased is shown in the following tables.

Respectfully submitted,

W. W. MADAY, B.SC.,
Director of Pharmaceutical Services

	1957-58	1958	1959
Drugs	$143,736.83	$145,414.98	$162,509.69
Case Room	3,397.01	2,505.84	3,763.38
Operating Room	15,051.86	16,092.05	19,021.76
O.P.D.	9,932.83	11,621.47	16,160.27
X-Ray	3,478.06	3,867.04	3,302.62
Cystocopy	3,043.78	2,027.30	1,824.41
Diet Kitchens	2,754.47	2,644.03	2,553.41
Laboratories	5,235.64	6,978.67	10,331.77
Emergency	2,979.86	3,328.20	5,111.26
Small Departments	980.62	1,370.77	2,334.65
Liquor Purchases	2,546.30	3,950.50	4,906.80
Central Supply Room	3,295.65	3,503.39	4,531.90
Health Service	3,430.32	3,091.48	3,582.89
Cardiac Recovery Room	------	------	234.19
Cardio-vascular Surgery	------	------	203.23
Premature Nurseries	------	------	464.76
Teaching Department	------	------	94.97
	$199,863.23	$206,395.72	$240,931.96

Stock Inventory	$ 60,574.08	$ 58,231.92	$ 68,079.03
Stock Turnover	3.4	3.6	3.5
Prescriptions	128,824	70,697	141,167
Floor Emergency Supplies	------	3,960	12,336
Floor Requisitions	16,152	15,320	14,040
Small Departments	4,336	4,264	7,204
Antibiotics	88,243	86,290	21,634
Narcotic Requisitions	12,208	12,030	13,140
Daily Average	693	535	574

Comparative costs of antibiotics and corticosteroids for the past three years.

	1957-58	1958	1959
Crystalline Penicillin	$ 5,394.49	$ 5,136.00	$ 6,831.64
Proc. Aq. Pen. 400 M.U.	2,671.05	2,113.00	3,886.88
Streptomycin	478.61	427.00	730.00
Pen. Proc. Aq. /c Strep.	1,022.26	1,209.00	1,735.55
Neomycin	921.00	1,530.00	1,711.81
Bacitracin	707.00	637.00	185.16
Aerosporin	102.00	96.00	66.72
Chlortetracycline	483.97	414.00	447.15
Chloramphenicol	22,654.77	25,895.00	35,353.66
Oxytetracycline	3,378.46	1,700.00	3,858.87
Tetracycline	4,367.00	4,030.00	3,434.19
Erythromycin	3,012.00	1,839.00	3,960.01
Cortisone	1,330.00	956.00	914.08
Hydrocortone	3,868.00	4,376.00	6,440.21
Prednisone	5,365.00	6,095.00	2,728.29
"Varidase"	66.00	573.00	10.72
A.C.T.H.	946.00	677.00	1,141.30
Novobiocin	1,496.00	856.00	631.40
Oleandomycin	114.00	------	------
Prednisolone	1,174.00	1,049.00	4,167.80
Triamcinolone	444.00	2,147.00	949.43
Spiromycin	180.00	108.00	------
Ristocitin	2,072.00	1,052.00	------
Decamethasone	------	73.00	778.64
Amphoterin-B	------	99.00	------
Kanamycin	------	346.00	50.67
	$ 62,247.61	$ 63,433.00	$ 80,014.18

Dr. A. C. McGugan,

Superintendent

Sir:

I herewith submit the annual report of the Health Service for the fiscal year ending December 31, 1959.

Preventive services offered to the hospital staff in the year 1959 consisted of nine hundred and ninety-two Mantoux tests of which two hundred and twenty were positive. Two hospital patients after admission were found to have tuberculosis. Sixty-three staff personnel were exposed to these cases and were followed by Mantoux tests and x-rays. Typhoid immunization series (three injections) were given to two hundred and seventeen individuals and reinforcing doses to two hundred and twenty-seven students and five hundred and fifty-four staff personnel. Three hundred and sixty-two doses of Salk vaccine were given to hospital employees.

A considerable portion of Health Service time is directed toward physical and mental assessment of prospective employees and students. A total of one thousand, four hundred and eighty-one physical examinations was done in the year 1959. Seven hundred and fifty-one of these were pre-employment physical examinations. One hundred and seventy-four pre-entrance and seventeen pre-affiliation physicals were done on prospective student nurses. Sixty-nine physical examinations of student nurses completing their training were finalized. Four hundred and seventy annual assessment examinations were completed on the nursing staff. Nine prospective employees were rejected for health reasons after their physical examinations. Three prospective employees were rejected before their examinations in the Health Service.

The Health Service completed one hundred and eighty-nine Hospital Employer Compensation Board forms with respect to injuries sustained by employees on the hospital premises.

A complete medical is given to all student personnel, such as nurses, dietitians, pharmacists, x-ray and laboratory staff, internes and nursing aide trainees. Three hundred and thirty-three students were admitted to hospital for a total of one thousand, five hundred and ninety-nine hospital days.

I wish to thank Miss MacArthur, Mrs. King, Dr. I. Holmes, Dr. R. Eidem, the staff consultants and all departments for their generous cooperation.

Respectfully submitted,

F. B. Rodman, PH.D., M.D.,

Medical Director of Health Service

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to present the Annual Report of the Outdoor Clinic for the year January 1, 1959 to December 31, 1959.

Patients treated at Clinic	3,654
New patients admitted to Clinic	2,121
Patients' visits	16,666

Distribution of patients' visits:

Med. 7,250, Surg. 1,102, Derm. 1,013, Ortho. 666, Neuro. 1,188, G.U. 57, Paed. 2,049, Obst. 1,314, Gyn. 495, Psych. 117, E.N.T. 371, Opth. 774.

Orders filled	17,592
Laboratory Blood Work	2,781
Urinalysis	2,178
Refractions	560
Physiotherapy	18
X-ray University Hospital	224
E.C.G. University Hospital	14
E.E.G. University Hospital	9
R.A.I. Uptake University Hospital	6
B.M.R. University Hospital	1
I.V.P. University Hospital	10
Pulmonary Function	1
B 12 Absorption	1
X-ray X-ray School	137
E.C.G.	10
B.M.R.	1
X-ray Northgate Building	57
E.C.G. Northgate Building	2
E.C.G. O.P.D.	3

Patients treated from City	8,056
Patients treated from City Relief	2,631
Patients treated from Province	4,515
Patients treated from Provincial Relief	1,464

Patients admitted to University Hospital ---------- 915

Med. 242, Surg. 105, Derm. 12, Ortho. 33, Neuro. 29, G.U. 11, Paed. 123, Obst. 200, Gyn. 65, T & A 59, E.N.T. 6, Opth. 22, Psych. 8.

Patients admitted to Royal Alexandra Hospital ----------Med. 2

This has been a most interesting year with continued increase in activity and teaching in all departments. More responsibility is being taken by the Resident staff and student experience has been expanded. The time table has been changed to accommodate additional clinics and graduate staff was augmented to make this arrangement possible.

A weekly Psychiatric clinic inaugurated in October is proving to be invaluable as far as patient care is concerned and will undoubtedly be developed later for teaching purposes. As a result of the addition of this clinic we have a very complete and well rounded program.

It is with mixed feelings that we look forward to the transfer to the new service wing. However, it is obvious that the present facilities are becoming inadequate for the steady expansion taking place in both patient attendance and student education.

My sincere thanks again to the Voluntary Organizations, the Women's Auxiliary and the Junior White Circle for their continued generosity and to all the Business and Administrative Departments for their consistent cooperation.

Respectfully submitted,

(Mrs.) H. C. Carlyle, R.N.,

Supervisor

Doctor A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit the Annual Report from the Social Service Department for the year ending December 31, 1959.

The Department completed a total of 3,003 interviews with patients and families during the year. The aggregate new caseload has decreased by 5% (from 574 to 542) from last year's figure. We are attempting to give a comprehensive coverage on all units except Psychiatry, which now has its own Social Service Department. With our existent staff quota of one Social Worker and a secretary, some areas are not adequately serviced by this Department.

One project conducted in 1959 was to record the proportion of time spent on the various services. These statistics are given below on a percentage basis.

Department of Medicine	29%	Department of Obstetrics and Gynaecology	14%
Department of Surgery	11%	Division of Otorhinolaryngology	2%
Division of Neurosurgery	2%	Department of Paediatrics	9%
Division of Orthopaedic Surgery	7%	Department of Rehabilitation	24%
Division of Urology	1%	Out-Patients	1%

The recognition of medical-social problems and the referral of patients who need social help is a matter requiring close cooperation between the medical staff and the social worker. In 1959, 90 staff physicians made referrals, as compared with 86 the previous year. The Social Worker continued to attend regular clinics in the Rehabilitation Department and on Nursing Station 24.

It is essential that our function in the Hospital be properly defined, and that the staff know what contribution the Social Service Department can make to the total care of the patient. For this purpose, informal discussions were held with the nursing staff and other hospital personnel throughout the year. In February, I spoke to the charge nurses in the Paediatrics unit concerning mutual problems. Our work has been carefully synchronized with many social agencies in the community, particularly with regard to rehabilitation of the disabled. The Edmonton Rehabilitation Society, Workmen's Compensation Board, the Provincial Co-ordinator of Rehabilitation, Canadian Vocational Training, National Employment Service, Special Placements, Red Cross Society and Canadian Foundation for Poliomyelitis have all assisted the hospital team in its efforts to re-establish our handicapped patients in the community.

The number of patients requiring care in a chronic hospital far exceeds the present accommodation. On December 9, 1959, the Department completed a survey for the Assistant Medical Superintendent, which revealed that 52 patients in this hospital were awaiting transfer to a chronic hospital or nursing home. This figure does not include patients in the respiratory polio ward, South Pavilion or D. V. A.

Ways and means of improving our standard of service to meet the increased complexity of problems confronting us, have been studied during the year. A time survey conducted in November indicated that the Department is spending an inordinate amount of time looking after duties more appropriate to other

Departments. For example, completing forms, releasing deceased persons' effects and transporting patients consumed as much time as dealing with social problems. In many hospitals, clerical staff or case aides are employed to look after such routine activities, thereby making more effective use of the Department's specialized function.

It is impossible in the space allotted here to pay tribute to all the agencies to whom we have been indebted during 1959. Worthy of special mention, however, is the invaluable work done by the Hospital Women's Auxiliary. The appointment in September of Mrs. G. W. Bernard, as Director of Volunteers has effected a better liaison with the Auxiliary and made possible a co-ordinated volunteer program in the hospital. The ladies donated another $100, which was spent by the Department on patients' comforts and other items not available from community resources. I addressed the Auxiliary at their monthly meeting in March and outlined the services of this Department.

Community activities attended during the year include meetings of the Edmonton Council of Community Services, Central Volunteer Bureau, Family Service Bureau and the Rehabilitation Society of Alberta, Edmonton Branch. I also continued to act in the capacity of Corresponding Secretary for the Edmonton Rehabilitation Study Group. The monthly meetings of this group reflected an interest in a wide range of topics, such as transportation facilities for home-bound disabled persons, and the urgent need for a comprehensive rehabilitation center in Edmonton.

The following statistics indicate the number and nature of referrals made to the Social Service Department in the past three years:

	1959	1958	1957
Total Caseload	542	574	485
Nursing Home placements	103	127	108
Patients transferred to licensed boarding homes	58	47	50
Counselling service to unmarried mothers	64	53	23
Counselling service to patients with family problems	29	31	41
Patients requiring transportation arrangements	52	63	57
Patients requiring financial assistance:			
(a) Pension applications	38	23	56
(b) Prosthetic appliances	27	16	19
(c) Referred to welfare agencies	57	93	40
Patients requiring housekeeping services at home	2	4	11
Patients with vocational rehabilitation problems	110	111	77
Foster home placements	2	6	—
Correspondence courses approved for high school students	—	—	3

The Department is grateful for the continued cooperation of the Administration, medical and nursing staffs and other hospital personnel.

Respectfully submitted,

(Mrs.) S. Philip, B.A.,

Director

Dr. A. C. McGugan,

Superintendent

Sir:

The following Annual Report of the Dietary Department for the year 1959 is hereby submitted.

There were many changes in the staff during the year. Miss Mabel Patrick was appointed as Acting Director of Dietetics in July. Mrs. Florence Wilson was engaged as the Associate Director, Teaching. The following staff dietitians were appointed—Mrs. Vera Delaney, Mrs. Audrey Evans, Mrs. Margaret Hamilton, Mrs. Evelyn McGibbon, and Mrs. Helen Campbell. Three part-time dietitians were employed—Mrs. Edith Hughes, Mrs. Nora Knowles and Mrs. Margaret Poole. Mrs. Helen Campbell resigned in December.

Three Dietetic Internes completed their course in 1959. Three Dietetic Internes commenced their course this year—Miss Norma Bolter and Miss Georgina Porozni from the University of Alberta, and Miss Margaret Tanton from McGill University. The Dietetic Interne Course for 1960-61 was approved by the Canadian Dietetic Association.

The Diet Manual, which has been accepted by the local hospitals, is now completed and ready for printing. In our hospital, we are in the process of changing the Diabetic Diets to the Exchange type of diet used by the Canadian Diabetic Association.

The Dietitians cooperated with Dr. Bertrand in a research project on blood sugar levels of mothers of large babies.

Several new pieces of equipment were purchased including a Quolheim vegetable cutter, autoclave and bottle filler for the Formula Room, tray carts, cash register stand, saucer lowerators, fans for Servery and Dishroom, bus wagon and typewriter.

The attached graphs show the increase in the total number of meals served and the rise in the raw food dollar. The increased cost per meal appears because this year the cost of in-between nourishments, lunches and coffee was added to the meal. The cost is now being calculated in meal days, or the cost of total food used, in one day, per person.

Respectfully submitted,

IRENE TORRINGTON, B.H.SC., P.DT.,

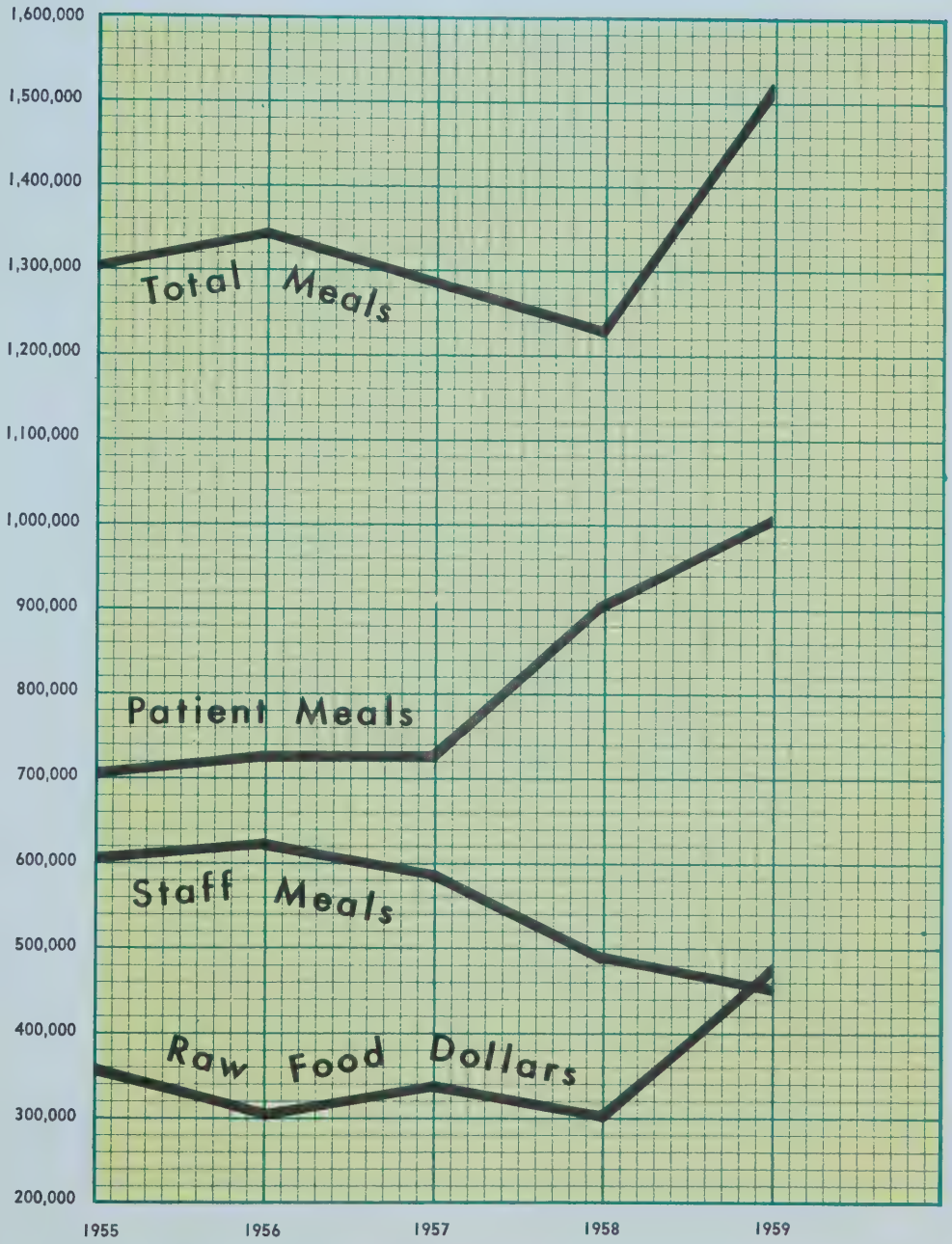
Director of Dietetics

UNIVERSITY OF ALBERTA HOSPITAL
COMPARATIVE MEAL COUNTS, FOOD COSTS
1954 - 1959

	1954-55	1955-56	1956-57	1957-58	1958	1959
MEAL COUNT						
Staff	605,889	605,859	588,022	470,343	482,039	455,736
Patients	695,771	702,828	703,247	783,445	914,493	1,049,784
TOTAL MEALS	1,301,660	1,308,687	1,291,269	1,243,788	1,396,542	1,505,520
RAW FOOD COST	$351,810.07	310,894.46	314,209.00	312,773.65	371,316.98	467,417.45
AVERAGE COST PER MEAL	24.38¢	22.82¢	23.35¢	25.14¢	26.58¢	31.05¢
AVERAGE PRICES—BASIC FOODS						
Meat, lb.	$ .3472	$ .3416	$ .3291	$ .3803	$ .4114	$ .4113
Turkey, lb.	.4245	.3511	.4229	.3577	.4466	.3792
Butter, lb.	.5721	.3832	.3871	.5369	.6424	.6415
Eggs, doz.	.4039	.4523	.4378	.3647	.3780	.3694
Potatoes, bushel	1.6420	1.4423	1.4894	1.1271	1.4947	1.4600

UNIVERSITY OF ALBERTA HOSPITAL

1955—DECEMBER 31, 1959



Dr. A. C. McGugan,

Superintendent

Sir:

I again have the pleasure of presenting the annual report of the Personnel Department for the year ending December 31, 1959.

A substantial increase in utilization of hospital facilities, coupled with the reorganization of Nursing Stations 23-24 and M.P. 7-9 necessitated an increase in establishment of 55 persons during the year. To facilitate the opening of the Clinical Services Wing a further increase of 44 persons was authorized, bringing approved establishment to 1,332 at January 1, 1960.

Negotiations with the Civil Service Association of Alberta resulted in an upward revision of salary schedules. Settlement was on the basis of $180.00 per annum for technical and professional personnel and an additional increment added to schedules for non-professional and manually skilled workers. Gross salaries and wages for the year ending December 31, 1959 amounted to $3,925,445.89, an increase of $494,192.36 over the preceding period.

Establishment and separations by department are shown below.

Respectfully submitted,

J. L. PEDDEN,
Personnel Officer

	Budgeted Establishment 1959		Budgeted Establishment 1960		Separations Full Time 1959	Complement December 31/59	
	Full Time	Part Time	Full Time	Part Time		Full Time	Part Time
Administration	83	5	86	9	42	82	9
Graduate Nurses	308	11	335	4	200	292	20
Certified Nursing Aides	80	—	100	—	37	82	1
Ward Clerks and Stenographers	27	2	27	2	11	27	2
Ward Aides	115	—	117	—	125	114	—
Orderlies	78	—	82	—	40	77	—
Nurses' Home and Interns' Quarters	28	—	28	—	6	27	—
Medical Records	23	—	25	—	8	23	—
Medical Directors	—	5	—	4	—	—	4
Anaesthesia	2	—	2	—	—	2	—
Clinical Laboratories and Research	66	14	74	16	34	63	15
Pharmacy	10	—	10	—	—	11	—
Orthopaedics	4	—	4	—	1	4	—
Ophthalmology	1	—	1	—	1	1	—
Rehabilitation, including Social Service, Psychiatry and Academic School	41	1	47	1	23	39	3
X-Ray	24	—	26	—	9	22	1
Dietary	133	11	137	13	114	140	18
Housekeeping	66	—	76	—	34	69	—
Janitors and Elevator Operators	35	—	43	—	15	39	—
Linen Repair and Distribution	12	—	12	—	8	12	—
Laundry	55	—	55	—	27	51	—
Maintenance	42	—	45	—	12	41	—
	1,233	49	1,332	49	747	1,218	73

Educational Programmes:	Potential Capacity	Enrollment December 31, 1959
Nursing (U of A Hospital)	375	344
Nursing (Affiliates Provincial Mental Hospital, Ponoka)	—	4
Nursing (Affiliates Archer Memorial Hospital, Lamont)	—	2
Nursing Aide Trainees	30	18
House Staff	103	65
Clinical Laboratory	21	19
Radiology	9	9
Pharmacy	2	—
Dietetics	9	3

A. C. (Slim) Waters who has worked in the engineering department for 38 years

MAINTENANCE

BEHIND THE SCENES

Carpenter Shop

Dr. A. C. McGugan,

Superintendent

Sir:

It is my privilege to submit the compiled annual report of the Maintenance Department for 1959.

Personnel

Engineers' Department	18
Painting Department	4
Housekeeping Maids	73
Carpenters' Department	9
Grounds	3
Janitors	40

The establishment of a Maintenance man with shop in the Nurses' Residence has proven to be a big help and has saved a great amount of travel time for hospital maintenance crew.

In an endeavor to promote a more thorough and routine cleaning on Maternity, M.P. 1, N.S. 36, 37 and 38, a cleaning team, of one janitor and two maids, with necessary equipment, was set up. Reports indicate that the team is proving very satisfactory.

Three janitors have been taken on strength in advance for the Clinical Services Wing, to handle furnishings and set up the floors with Duro Life Wax.

Utility Consumption in 1959:

Steam	99,613,950	pounds
Water	13,080,990	cubic feet
Power	5,329,463	k.w.h.
Paints, varnish, etc.	600	gallons
Wax applied	1,527	gallons
Detergent used	1,175	gallons
Work Orders processed	500	
Value of major equipment constructed	$11,264.00	

Some of the major work completed is as follows:

In conjunction with Dr. W. C. MacKenzie the engineers manufactured a new type of stretcher, so that X-rays may be taken without removing the patient, and it also provides the Trendelenburg position.

Installation of electric outlets in the House Staff Residence parking lot.

Replacing wooden sections with concrete bulkheads and relocating electric outlets on the west section of the main parking lot.

On the top floor of the South Pavilion (Research Wing), several new laboratories were constructed and some changes were made to the existing laboratories. This floor is now completely occupied and has in use over $50,000.00 worth of equipment.

Oxygen outlets were standardized by the installation of over one hundred Schrader valve outlets.

Floor tile was replaced on the second floor of the 1929 addition, and new tile was laid in the tunnel to the Nurses' and House Staff Residences.

The new storage building was completed and Stores Department appreciate, very much, their new quarters.

Permanent tiering was constructed in the lecture room of the Nurses' Residence and portable tiering was purchased for the Colonel Mewburn auditorium.

Windows were installed in N.S. 14, to conform with the rest of the building.

Conversion of linen room on N.S. 14, and the servery on N.S. 63 into offices.

To clear the area for the new Laundry building, it was necessary to re-locate the emergency power unit and the gardeners' shed.

Removal of air conditioner and remodeling of nursery on N.S. 33.

Removal of transformer vault from the old boiler room and change over to power lines into the Clinical Services Wing.

Another house was acquired which is being used as a residence for graduate nurses. Considerable work was required to completely rewire, repair plumbing, and replace fixtures, plaster, patch and redecorate this house.

Emotionally Disturbed Area, N.S. 23. The labor and materials required to remodel this area amounted to over $10,000.00.

The basement of the new wings of the Nurses' Residence was waterproofed and weeping tile was installed.

Our painting program progressed very well. The Colonel Mewburn Pavilion was spruced up for the Queen's visit, and all outside windows, screens, and cement blocks below the windows were painted.

Dados were painted on some hallways and all staircases. We hope that this will economize on cleaning and redecorating.

Instead of contracting the work, we are now applying waterproofing to the outside walls ourselves, thus effecting a considerable saving.

Chain Link fencing has been extended and now encloses most areas of the hospital.

The House Staff Residence was landscaped, also the playground west of the Polio Wing.

Pieces of new equipment which are proving helpful to the gardeners are a large power lawn mower, a mechanical edger and a roto-tiller.

On behalf of the department heads and myself, I would like to express our appreciation of the cooperation of Administration and all departments.

Respectfully submitted,

Ellis Rose,

Maintenance Co-Ordinator

LAUNDRY

Dr. A. C. McGugan,
Superintendent

Sir:

I herewith submit the annual report of the Laundry Department for the year ending December 31, 1959.

The amount of linen washed, dried, and ironed in the past twelve months was 3,360,080 pounds of flat and tumbled work, and 175,095 pounds of starch work; for a total of 3,535,175 pounds.

This is an increase of 336,350 pounds over the work done in the preceding twelve months.

All linen processed in the Laundry is now treated with a quaternary ammonium compound. This helps to control bacteria growth on linen, and it also acts as a fabric softener and adds greatly to the comfort of the patient.

Construction of the new Laundry building has not been started yet, but it is hoped that it will be in the near future as the ever increasing demands for clean linen can only be met by larger and more efficient machines and more space.

I wish to thank all departments for their cooperation in the past year.

Respectfully submitted,

Daniel Schneider,
Laundry Manager

COMPARATIVE STATISTICAL REVIEW 1958-1959

ADMISSIONS:	1958	1959
Total	22,087	22,042
Private	922	712
Semi-Private	3,975	4,138
Public	11,686	12,081
O.P.D.	837	933
D.V.A.	835	477
Staff	320	213
Others	3,512	3,488
RELIGION:		
Protestant	6,019	6,051
Roman Catholic	4,215	4,330
United Church	3,906	3,776
Presbyterian	770	674
Church of England	2,572	2,488
Lutheran	1,462	1,586
Others	3,143	3,137
NATIONALITY:		
Canada	15,965	16,129
British Isles	2,244	2,054
U.S.A.	1,203	1,090
Others	2,675	2,769
BY DEPARTMENT:		
Medical	5,165	4,927
Surgical	3,691	3,542
Obstetrical	2,160	2,253
Gynaecological	1,561	1,629
E.E.N. & T.	1,430	1,548
Orthopaedic	2,004	1,836
Dermatology	160	174
Neuro-Surgery	484	547
Paediatrics	1,392	1,584
Metabolic	438	494
G. U.	1,088	1,015
Cardiology	500	457
Others	2,014	2,046
Maximum Admissions any one day	98	104
Minimum Admissions any one day	12	22
Maximum Discharges any one day	130	142
Minimum Discharges any one day	10	12
Maximum in Hospital any one day	1,109	1,074
Minimum in Hospital any one day	611	630
Number of patients on hand at beginning of year	650	750
Total number of patients deceased during year	553	601
Total number of patients on hand at end of year	750	799
Total number of patient days	322,075	349,087
Daily average number of patients	882	956
Average stay of patient	14.6	15.87
X-RAY DEPARTMENT:		
Radiographs (films)	86,100	102,536
Radiographs (examinations)	33,281	36,060
Fluoroscopies	3,853	3,640
X-Ray Treatments	2,854	2,705
LABORATORY DEPARTMENT:		
Examinations	231,704	275,966
B. M. R.'s	778	529
E. C. G.'s	5,247	5,790
Total	237,729	282,285
OPERATIONS:		
Total	10,377	12,401
Major	3,288	4,285
Minor	3,738	4,518
Genito-Urinary	3,351	3,598
OUTPATIENT TREATMENTS	85,667	116,611

INDEX

	Page
Administration	3
Report of the Superintendent	4
Finances	8
Report of the Business Administrator	9
Report of Medical Staff	10
Medical Staff	12
House Staff	15
A Typical Day in the Hospital	16
Medical Staff Committees	18
Department of Medicine	19
Department of Surgery	22
Department of Anaesthesiology	27
Operating Room	29
Department of Obstetrics and Gynaecology	31
Department of Psychiatry	34
Department of Paediatrics	35
Department of Ophthalmology and Otolaryngology	38
Department of Rehabilitation	39
Department of Radiology	42
Medical Staff Photograph	44
Department of Pathology	46
Clinical Laboratory Services	47
Special Services and Research	51
Publications, Addresses, Research Projects	53
School for Laboratory Technologists	64
Department of Nursing	66
Department of Pharmacy	72
Health Services	74
Outdoor Clinic	75
Social Services	77
Dietary Department	79
Personnel Department	82
Maintenance	83
Laundry	86
Comparative Statistical Review 1959	87

UNIVERSITY
of ALBERTA
HOSPITAL

COMMERCIAL PRINTERS LTD., EDMONTON

Digitized by the Internet Archive
in 2026 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library